

## AIMB-267 KIOSK

Intel® LGA775 Core™ 2 Quad/  
Duo Mini ITX Motherboard with  
DDR3/ 8 COM/ Dual LAN/  
VGA+LVDS/ PCIe x 1

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# Safety Information

## Electrical safety

- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system.
- When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.
- Before connecting or removing signal cables from the motherboard, ensure that all power cables are unplugged.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Make sure that your power supply is set to the correct voltage in your area. If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.

## Operation safety

- Before installing the motherboard and adding devices on it, carefully read all the manuals that came with the package.
- Before using the product, make sure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may become wet.
- Place the product on a stable surface.
- If you encounter technical problems with the product, contact a qualified service technician or your retailer.

# A Message to the Customer

## Advantech Customer Services

Each and every Advantech product is built to the most exacting specifications to ensure reliable performance in the harsh and demanding conditions typical of industrial environments. Whether your new Advantech equipment is destined for the laboratory or the factory floor, you can be assured that your product will provide the reliability and ease of operation for which the name Advantech has come to be known.

Your satisfaction is our primary concern. Here is a guide to Advantech's customer services. To ensure you get the full benefit of our services, please follow the instructions below carefully.

## Technical Support

We want you to get the maximum performance from your products. So if you run into technical difficulties, we are here to help. For the most frequently asked questions, you can easily find answers in your product documentation. These answers are normally a lot more detailed than the ones we can give over the phone.

So please consult this manual first. If you still cannot find the answer, gather all the information or questions that apply to your problem, and with the product close at hand, call your dealer. Our dealers are well trained and ready to give you the support you need to get the most from your Advantech products. In fact, most problems reported are minor and are able to be easily solved over the phone.

In addition, free technical support is available from Advantech engineers every business day. We are always ready to give advice on application requirements or specific information on the installation and operation of any of our products.

# Declaration of Conformity

## FCC

This device complies with the requirements in part 15 of the FCC rules:

Operation is subject to the following two conditions:

- This device may not cause harmful interference
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this device in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense. The user is advised that any equipment changes or modifications not expressly approved by the party responsible for compliance would void the compliance to FCC regulations and therefore, the user's authority to operate the equipment.

# CPU Compatibility

Test Item		Description									Result	Remark
CPU Family	sSpec.	Core Stepping	Power	Vcore	FSB	Mfg. Tech	HT	L2 cache	L3 cache	Package Type		
Quad Q9650 3.0GHz EM64T Quad Core	SLB8W	E0	95W	0.8500V - 1.3625V	1333	45nm	NA	12MB	NA	FC- LGA6	PASS	
CoreQuad Q9400 2.66GHz EM64T Quad Core	SLB6B	R0	95W	0.85V - 1.3625V	1333	45nm	NA	na	NA	FC- LGA6	PASS	
Core2Quad Q9300 2.5GHz EM64T Quad Core	SLAW E	M1	95W	0.85V - 1.3625V	1333	45nm	NA	6MB	NA	FC- LGA6	PASS	
Core2 Quad Q8200 2.33 GHz EM64T Quad Core	SLB5M	M1	95W	0.85V - 1.3625V	1333	45nm	NA	4MB	NA	FC- LGA6	PASS	
Core2 Quad Q6600 2.4GHz EM64T Quad Core	SL9UM	B3	105W	0.85V - 1.5V	1066	65nm	NA	8MB	NA	FC- LGA6	PASS	
Core2 Quad Q6600 2.4GHz EM64T Quad Core	SLACR	B3	95W	0.85V - 1.5V	1066	65nm	NA	8MB	NA	FC- LGA6	PASS	
Core2 Duo E8500 3.16GHz EM63T Dual Core	SLAPK	C0	65W	0.85- 1.3625V	1333	45nm	NA	6MB	NA	FC- LGA6	PASS	
Core2 Duo E8400 3.0GHz EM64T Dual Core	SLB9J	E0	65W	0.85V- 1.3625V	1333	45nm	NA	6MB	NA	FC- LGA6	PASS	
Core2 Duo E8400 3.0GHz EM64T Dual Core	SLAPL	C0	65W	0.85- 1.3625V	1333	45nm	NA	6MB	NA	FC- LGA6	PASS	
Core2 Duo E8200 2.66GHz EM64T Dual Core	SLAPP	C0	65W	0.85- 1.3625V	1333	45nm	NA	6MB	NA	FC- LGA6	PASS	
Core2 DuoE7500 2.93GHz EM64T Dual Core	SLGTE	R0	65W	0.8500V- V1.3625	1066	45nm	NA	3MB	NA	FC- LGA6	PASS	
Core2 Duo E7400 2.80GHz EM64T Dual Core	SL6W3	R0	65W	0.85- 1.3625V	1066	45nm	NA	3MB	NA	FC- LGA6	PASS	

Core2 Duo E7300 2.66GHz EM64T Dual Core	SLAPB	M0	65W	0.85- 1.3625V	1066	45nm	NA	3MB	NA	FC- LGA6	PASS
Core2 Duo E7200 2.53GHz EM64T Dual Core	SLAVN	M0	65W	0.85- 1.3625V	1066	45nm	NA	3MB	NA	FC- LGA6	PASS
Core2 Duo E6700 2.66GHz EM64T Dual Core	SL9ZF	B2	65W	0.850- 1.3525V	1066	65nm	NA	4MB	NA	FC- LGA6	PASS
Core2 Duo E6700 2.66GHz EM64T Dual Core	SL9S7	B2	65W	0.850- 1.3525V	1066	65nm	NA	4MB	NA	FC- LGA6	PASS
Core2 Duo E6600 2.40GHz EM64T Dual Core	SL9S8	B2	65W	0.850- 1.3525V	1066	65nm	NA	4MB	NA	FC- LGA6	PASS
Core2 Duo E6550 2.33GHz EM64T Dual Core	SLA9X	G0	65W	0.962V- 1.350V	1333	65nm	NA	4MB	NA	FC- LGA6	PASS
Core2 Duo E6500 2.93GHz EM64T Dual Core	SLGU H	R0	65W	0.962V- 1.350V	1066	45nm	NA	2MB	NA	FC- LGA6	PASS
Core2 Duo E6400 2.13GHz EM64T Dual Core	SL9S9	B2	65W	0.850- 1.3525V	1066	65nm	NA	2MB	NA	FC- LGA6	PASS
Core2 Duo E6300 1.86GHz EM64T Dual Core	SL9SA	B2	65W	0.850- 1.3525V	1066	65nm	NA	2MB	NA	FC- LGA6	PASS
Core2 Duo E6420 2.13GHz EM64T Dual Core	SLA4T	B2	65W	0.850- 1.5V	1066	65nm	NA	4MB	NA	FC- LGA6	PASS
Core2 Duo E6320 1.86GHz EM64T Dual Core	SLA4U	B2	65W	0.850- 1.5V	1066	65nm	NA	4MB	NA	FC- LGA6	PASS
Core2 Duo E5300 2.6GHz EM64T Dual Core	SLB9U	R0	65W	0.85V@C 1.3625V	800	45nm	NA	2MB	NA	FC- LGA6	PASS
Core2 Duo E4700 2.6GHz EM64T Dual Core	SLALT	G0	65W	1.162V- 1.312V	800	65nm	NA	2MB	NA	FC- LGA6	PASS

Core2 Duo E4500 2.2GHz EM64T Dual Core	SLA95	M0	65W	0.850- 1.5V	800	65nm	NA	2MB	NA	FC- LGA6	PASS
Core2 Duo E4300 1.8GHz EM64T Dual Core	SL9TB	L2	65W	0.85V@C 1.5V	800	65nm	NA	2MB	NA	FC- LGA6	PASS
Pentium Dual-Core 1.8GHz E2160	SLA8Z	M0	65W	0.85V- 1.5V	800	65nm	NA	1MB	NA	FC- LGA6	PASS
Pentium Dual-Core 1.8GHz E2160	SLA3H	L2	65W	0.85V- 1.5V	800	65nm	NA	1MB	NA	FC- LGA6	PASS
Pentium Dual-Core 1.6GHz E2140	SLA3J	L2	65W	1.162V- 1.312V	800	65nm	NA	1MB	NA	FC- LGA6	PASS
Celeron E1500 2.2GHz EM64T	SLAQZ	M0	65W	0.962- 1.275V	800	65nm	NA	512KB	NA	FC- LGA6	PASS
Celeron E1200 1.6GHz EM64T	SLAQ W	M0	1.162V - 1.312V	1.162V- 1.312V	800	65nm	NA	512KB	NA	FC- LGA6	PASS
Celeron 440 2GHz	SL9XL	A1	35W	1.0- 1.3375V	800	65nm	NA	512KB	NA	FC- LGA6	PASS
Celeron 430 1.8GHz	SL9XN	A1	35W	1.0- 1.3375V	800	65nm	NA	512KB	NA	FC- LGA6	PASS
Celeron 420 1.6GHz	SL9XP	A1	35W	1.0- 1.3375V	800	65nm	NA	512KB	NA	FC- LGA6	PASS

## Memory Compatibility

Brand	Size	Speed	Type	ECC	Vendor PN	Memory	Advantech PN	Result
Apacer	4GB	DDR3 1066	DDR3	N	78.B1GDJ.AF1	HYNIX H5TQ2G83BFR- H9C	NA	PASS
ATP	4GB	DDR3 1066	DDR3	N	AQ12M64B8BKF8S	SAMSUNG 940 K4B2G0846B-HCF8 (256x8)	NA	PASS
Transcend	2GB	DDR3 1333	DDR3	N	TS256MLK64V3N		96D3-2G1333NN- TR1	PASS
Transcend	2GB	DDR3 1333	DDR3	N	TS256MLK64V3U	SEC K4B1G0846G- BCH9	96D3-2G1333NN- TR4	PASS
Transcend	4GB	DDR3 1333	DDR3	N	TS512MLK64V3U		96D3-4G1333NN- TR	PASS
Apacer	2GB	DDR3 1333	DDR3	N	78.A1GDE.4200C	ELPIDA J2108BCSE- DJ-F	96D3-2G1333NN- AP2	PASS
Apacer	2GB	DDR3 1333	DDR3	N	78.A1GDE.AF00C	Hynix H5TQ2G838FR(256x8)	96D3-2G1333NN- AP1	PASS
Apacer	4GB	DDR3 1333	DDR3	N	78.B1GDE.AF1	HYNIX H5TQ2G83BFR- H9C	96D3-4G1333NN- AP	PASS
Kingston	4GB	DDR3 1333	DDR3	N	KVR1333D3N9/4G	KINGSTON D2568JENCPCGD9U(51 2x64)	NA	PASS
ATP	4GB	DDR3 1333	DDR3	N	AQ12M64B8BKH9S	SAMSUNG 949 K4B2G0846B-HCH9 (256x8)	NA	PASS

Transcend	2GB	DDR3 1066	DDR3	N	TS256MLK64V1U	SEC K4B1G0846G- BCH9	96D3-2G1066NN- TR	PASS
Apacer	2GB	DDR3 1066	DDR3	N	78.A1GC3.421	ELPIDA J1108BDBG- DJ-F (128x8)	96D3-2G1066NN- AP	PASS
Kingston	2GB	DDR3 1333	DDR3	N	KVR1333D3S8N9/ 2G	ELPIDA J2108BCSE- DJ-F(128x8)	NA	PASS
DSL	2GB	DDR3 1600	DDR3	N	D3US56081XH12A A	SEC 113 HCK0 K4B2G0846C 256x8	NA	PASS
DSL	4GB	DDR3 1600	DDR3	N	D3US56082XH12A A	SEC 113 HCK0 K4B2G0846C 256x8	NA	PASS
Transcend	4GB	DDR3 1600	DDR3	N	TS512MLK64V6N	MICRON IUM22 D9PFJ	NA	PASS
Transcend	2GB	DDR3 1600	DDR3	N	TS256MLK64V6N	MICRON IRM72 D9PFJ	NA	PASS
Transcend	1GB	DDR3 1066	DDR3	N	TS128MLK64V1U	SEC K4B1G0846G- BCH9	96D3-1G1066NN- TR	PASS
Apacer	1GB	DDR3 1066	DDR3	N	78.01GC3.420	ELPIDA J1108BDBG- DJ-F (128x8)	96D3-1G1066NN- AP	PASS
Transcend	1GB	DDR3 1333	DDR3	N	TS128MLK64V3U	ELPIDA EDJ1108BFBG-DJ-F	96D3-1G1333NN- TR	PASS
Apacer	1GB	DDR3 1333	DDR3	N	78.01GC6.AF0	H5TQ1G83DFR-H9C H5TQ1G83TFR-H9C	96D3-1G1333NN- AP1	PASS PASS

## Ordering Information

	Display	LAN	COM	Chipset
AIMB-267VG-KSA1E	VGA	1	8	G41+ICH7
AIMB-267G2-KSA1E	VGA/ LVDS	2	8	G41+ICH7

## Product Warranty (2 years)

Advantech warrants to you, the original purchaser, that each of its products will be free from defects in materials and workmanship for two years from the date of purchase.

This warranty does not apply to any products which have been repaired or altered by persons other than repair personnel authorized by Advantech, or which have been subject to misuse, abuse, accident or improper installation. Advantech assumes no liability under the terms of this warranty as a consequence of such events.

Because of Advantech's high quality-control standards and rigorous testing, most of our customers never need to use our repair service. If an Advantech product is defective, it will be repaired or replaced at no charge during the warranty period. For out-of-warranty repairs, you will be billed according to the cost of replacement materials, service time and freight. Please consult your dealer for more details.

If you think you have a defective product, follow these steps:

1. Collect all the information about the problem encountered. (For example, CPU speed, Advantech products used, other hardware and software used, etc.) Note anything abnormal and list any onscreen messages you get when the problem occurs.
2. Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.
3. If your product is diagnosed as defective, obtain an RMA (return merchandise authorization) number from your dealer. This allows us to process your return more quickly.

4. Carefully pack the defective product, a fully-completed Repair and Replacement Order Card and a photocopy proof of purchase date (such as your sales receipt) in a shippable container. A product returned without proof of the purchase date is not eligible for warranty service.
5. Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

## Initial Inspection

Before you begin installing your motherboard, please make sure that the following materials have been shipped:

- LGA 775 Core™ 2 Quad Pentium dual-core/Celeron® Processor-based Mini ITX with DDR3/Dual LAN/PCIe x 1
- 1 x AIMB-267 KIOSK startup manual
- 1 x CD with driver utility and manual
- 2 x Serial ATA HDD data cable
- 2 x COM port cable kit
- 1 x I/O port bracket
- 1 x warranty card

If any of these items are missing or damaged, contact your distributor or sales representative immediately. We have carefully inspected the AIMB-267 KIOSK mechanically and electrically before shipment. It should be free of marks and scratches and in perfect working order upon receipt. As you unpack the AIMB-267 KIOSK, check it for signs of shipping damage. (For example, damaged box, scratches, dents, etc.) If it is damaged or it fails to meet the specifications, notify our service department or your local sales representative immediately. Also notify the carrier. Retain the shipping carton and packing material for inspection by the carrier. After inspection, we will make arrangements to repair or replace the unit.



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# Chapter 1

## General Information

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## 1.1 Introduction

The AIMB-267 KIOSK is designed with the Intel G41 and the ICH7 for industrial applications that require both performance computing and enhanced power management capabilities. The motherboard supports Intel LGA 775 Core 2 Quad up to 2.66 GHz/ Core 2 Duo up to 3.16 GHz/Pentium Dual-Core up to 2.93 GHz/Celeron up to 1.6 GHz with 800/1066/1333 MHz front side bus and DDR3 800/1066 MHz up to 4 GB.

The AIMB-267 KIOSK offers cost-saving integrated graphics, built on the Intel G41 chipset and features the unique Intel Extreme Graphics architecture that maximizes VGA performance and shares system memory up to 352 MB.

Advantech AIMB-267 KIOSK is designed with an Intel G41 chipset and supports Intel Core 2 Quad/Duo processor up to FSB 1333 MHz. A rich I/O connectivity of 8 serial ports, 8 USB 2.0, dual GbE LAN and 2 SATA ports.

## 1.2 Features

- **Cost effective G41 chipset:** supports 800/1066/1333 Front side bus
- **Rich I/O connectivity:** 8 serial ports, 8 USB 2.0, dual GbE LAN
- **Standard Mini ITX form factor with industrial feature:** The AIMB-267 KIOSK is a fully-featured Mini ITX motherboard with balanced expandability and the performance
- **Wide selection of storage devices:** SATA HDD, customers benefit from the flexibility of using the most suitable storage device
- **Optimized integrated graphic solution:** With Intel Graphics Media Accelerator X4500, supports versatile display options and 32-bit 3D graphics engine

## 1.3 Specifications

### 1.3.1 System

- **CPU:** LGA775 Core 2 Quad up to 2.66 GHz/Core 2 Duo up to 3.16 GHz/Pentium Dual-Core up to 2.93 GHz/Celeron up to 1.6 GHz with 800/1066/1333 MHz front side bus
- **BIOS:** AMI SPI 16 Mbit BIOS
- **System chipset:** Intel G41 with ICH7
- **SATA hard disk drive interface:** Two on-board SATA connectors with data transmission rate up to 300 MB

### 1.3.2 Memory

- **RAM:** Up to 4 GB in 1 slot 240-pin DIMM socket. Supports single channel DDR3 800/1066 MHz SDRAM

### 1.3.3 Input/Output

- **PCIe bus:** 1PCIe x1 slot
- **Enhanced parallel port:** Configured to LPT1 with 25 pin box header. Supports EPP/SPP/ECP
- **Serial ports:** Eight serial ports, one of RS-232/422/485 and seven of RS-232 serial ports
- **Keyboard and PS/2 mouse connector:** Two 6-pin mini-DIN connectors are located on the mounting bracket for easy connection to a PS/2 keyboard and mouse

- **USB port:** Supports up to eight USB 2.0 ports with transmission rates up to 480 Mbps, (4 on board pin header and 4 external ports)

### 1.3.4 Graphics

- **Controller:** Chipset integrated VGA controller
- **Display memory:** Dynamically shared system memory up to 224 MB
- **CRT:** Up to 2048 x 1536 resolution, 400 MHz RAMDAC

### 1.3.5 Ethernet LAN

- Supporting single/dual 10/100/1000Base-T Ethernet port (s) via PCIe x1 bus which provides 500 MB/s data transmission rate
- **Controller:** LAN: Realtek RTL8111E

### 1.3.6 Industrial Features

- **Watchdog timer:** Can generate a system reset. The watchdog timer is programmable, with each unit equal to one second or one minute (255 levels).

### 1.3.7 Mechanical and Environmental Specifications

- **Operating temperature:** 0 ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution
- **Storage temperature:** -40 ~ 85° C (-40 ~ 185° F)
- **Humidity:** 5 ~ 95% non-condensing.
- **Power supply voltage:** +3.3 V, +5 V, +12 V, -12 V, 5 Vsb.
- **Power consumption:**  
+5 V @ 1.91 A, +3.3 V @ 0.35 A, +12 V @ 1.29 A, 5 VSB @ 0.18 A, -12 V @ 0.06 A Measure the maximum current value which system under maximum load (CPU: Top speed, RAM & Graphic= full loading).
- **Board size:** 170 mm x 170 mm (6.69" x 6.69")
- **Board weight:** 0.365 kg

## 1.4 Jumpers and Connectors

Connectors on the AIMB-267 KIOSK motherboard link it to external devices such as hard disk drives and a keyboard. In addition, the board has a number of jumpers used to configure the system for your application.

The tables below list the function of each of the board jumpers and connectors. Later sections in this chapter give instructions on setting jumpers. Chapter 2 gives instructions for connecting external devices to your motherboard.

**Table 1.1: Jumpers**

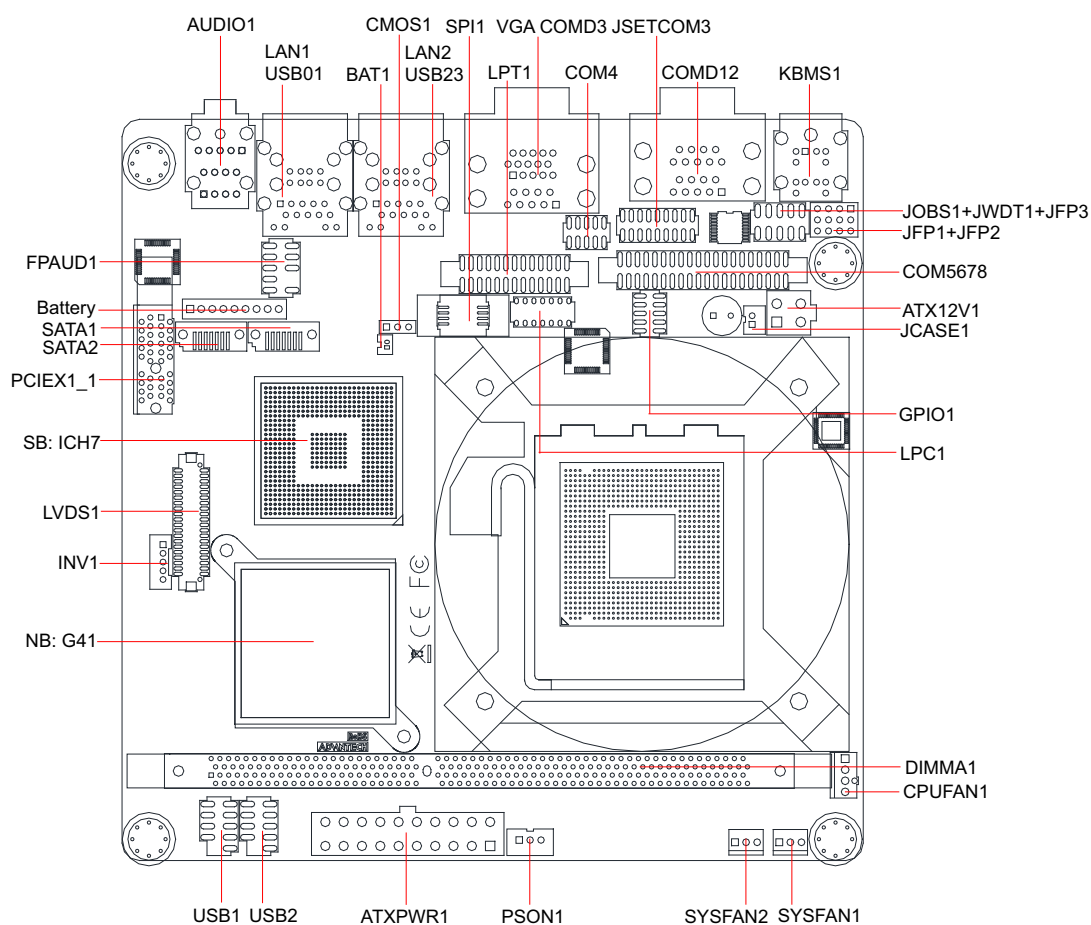
Label	Function
CMOS1	CMOS clear (Default 1-2)
JCASE1	JCASE OPEN connector
PSON1	AT (1-2)/ATX (2-3) (Default 2-3)
JSETCOM3	RS232/422/485 Selectable Jumper
LVDS1/LVDS2	Voltage Selector for LVDS1 connector (Default 1-2, 3.3 V)

**Table 1.2: Connectors**

Label	Function
LPT1	Printer Port connector
LAN1_USB01	LAN1/ USB port 0, 1
LAN2_USB23	LAN2/ USB port 2, 3
USB1/USB2	USB port 1, 2 (on board)
VGA1	VGA connector
COM1~8	COM port connector
KBMS1	PS/2 Keyboard and Mouse connector
CPUFAN1	CPU FAN connector
SYSFAN1/SYSFAN2	SYS FAN connector
JFP1+JFP2	Power Switch/RESET/HDD LED/SMBus/Internal Buzzer/External speaker
JOBS1+JWDT1+JFP3	Front Panel-Power LED & Keyboard Lock/Watch dog output to Reset/OSB Alarm
AUDIO1	Line in/Line out/Mic in connector
SATA1/SATA2	Serial ATA data connector 1 & 2
ATX12v1	ATX 4 pin main power connector
ATXPWR1	ATX 20 pin main power connector
SPI1	BIOS socket
FPAUD1	HD Audio front panel pin header
GPIO1	Digital I/O pin header
LVDS1	LVDS connector
INV1	LVDS1 inverter connector



## 1.5 Board layout: Jumper and Connector Locations



**Figure 1.1 Jumper and Connector Location**



**Figure 1.2 I/O Connectors**

## 1.6 AIMB-267 KIOSK Block Diagram

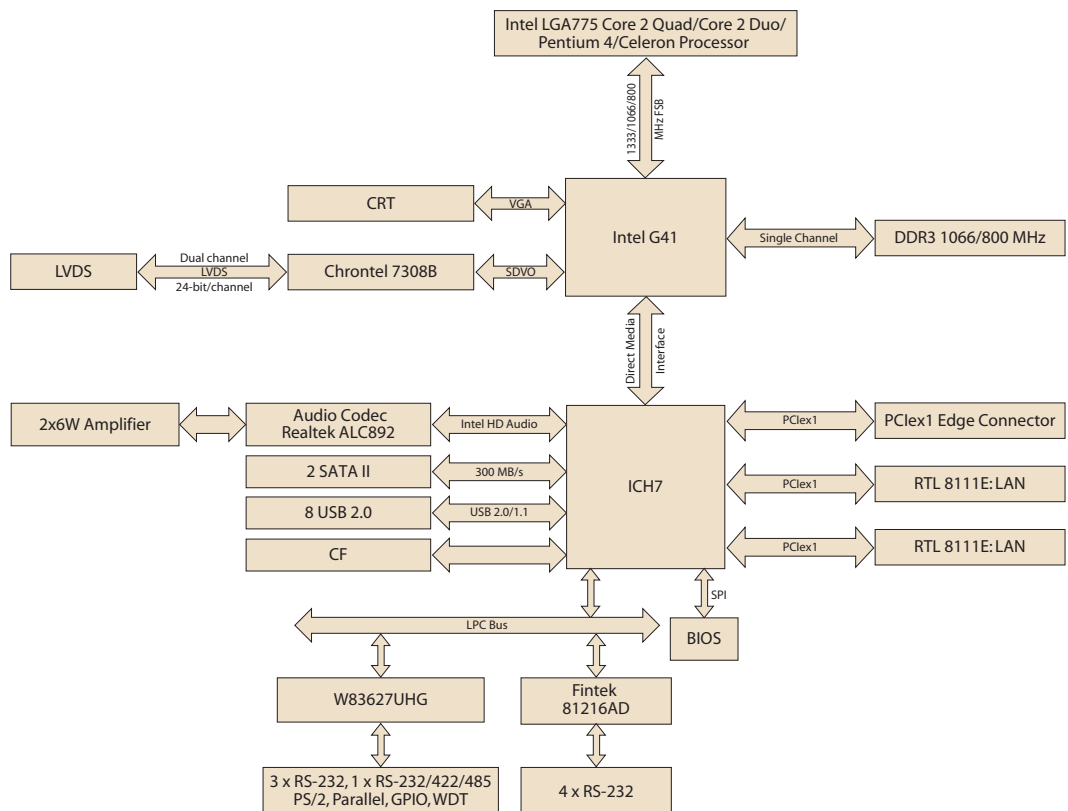


Figure 1.3 AIMB-267 KIOSK Block Diagram

## 1.7 Safety Precautions

**Warning!** *Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.*



**Caution!** *Always ground yourself to remove any static charge before touching the motherboard. Modern electronic devices are very sensitive to electrostatic discharges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components on a static-dissipative surface or in a static-shielded bag when they are not in the chassis.*



**Caution!** *The computer is provided with a battery-powered Real-time Clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to manufacturer's instructions.*



**Caution!** *There is a danger of a new battery exploding if it is incorrectly installed. Do not attempt to recharge, force open, or heat the battery. Replace the battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.*



## 1.8 Jumper Settings

This section provides instructions on how to configure your motherboard by setting the jumpers. It also includes the motherboards's default settings and your options for each jumper.



### 1.8.1 How to set jumpers

You can configure your motherboard to match the needs of your application by setting the jumpers. A jumper is a metal bridge that closes an electrical circuit. It consists of two metal pins and a small metal clip (often protected by a plastic cover) that slides over the pins to connect them. To “close” (or turn ON) a jumper, you connect the pins with the clip. To “open” (or turn OFF) a jumper, you remove the clip. Sometimes a jumper consists of a set of three pins, labeled 1, 2, and 3. In this case you connect either pins 1 and 2, or 2 and 3. A pair of needle-nose pliers may be useful when setting jumpers.

### 1.8.2 CMOS clear (CMOS1)

The AIMB-267 KIOSK motherboard contains a jumper that can erase CMOS data and reset the system BIOS information. Normally this jumper should be set with pins 1-2 closed. If you want to reset the CMOS data, set J1 to 2-3 closed for just a few seconds, and then move the jumper back to 1-2 closed. This procedure will reset the CMOS to its default setting.

**Table 1.3: CMOS1**

Function	Jumper Setting
	1
*Keep CMOS data	 1-2 closed
	1
Clear CMOS data	 2-3 closed
*default setting	

### 1.8.3 Chassis instruction connector (JCASE1)

The AIMB-267 KIOSK motherboard contains a jumper for a chassis open sensor. When set, the buzzer on the motherboard beeps when the case is opened.

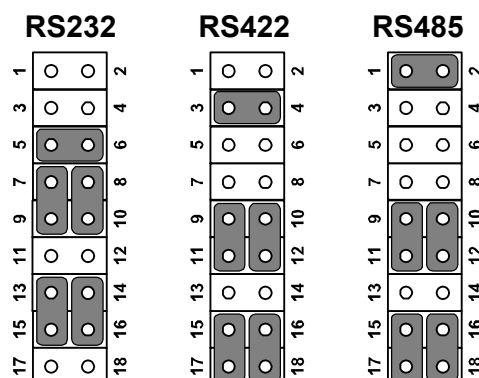
### 1.8.4 ATX/AT mode selector (PSON1)

**Table 1.4: ATX/AT mode selector (PSON1)**

Function	Jumper Setting
AT mode	1-2 closed
*ATX mode	2-3 closed
*default setting	

### 1.8.5 COM3 RS 232/422/485 mode selector (JSETCOM3)

Users can use JSETCOM3 to select among RS 232/422/485 modes for COM3. The default setting is RS 232.



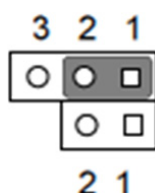
**Table 1.5: COM3 RS 232/422/485 mode selector (JSETCOM3)**

Function	Jumper Setting
*RS232	(5-6) + (7-9) + (8-10) + (13-15) + (14-16) closed
RS422	(3-4) + (9-11) + (10-12) + (15-17) + (16-18) closed
RS-485	(1-2) + (9-11) + (10-12) + (15-17) + (16-18) closed
*: Default	

### 1.8.6 JLVDS1/JLVDS2 Voltage Selector for LVDS1 Connector

**Table 1.6: Voltage selector :**

+3.3V	JLVDS1 1-2 short
+5V	JLVDS1 2-3 short
+12V	JLVDS1 pin 2 - JLVDS2 pin2 short)



## 1.9 System Memory

The AIMB-267 KIOSK has one socket for 240-pin DIMM x 1. All these sockets use 1.8v unbuffered double data rate synchronous DRAMs (DDR3 SDRAM). They are available in capacities of 1024 MB and 2048 MB. The sockets can be filled in any combination with DIMMs of any size, giving a total memory size on 4 GB. AIMB-267 KIOSK does NOT support ECC (error checking and correction).

---

## 1.10 Memory Installation Procedures

To install DIMMs, first make sure the two handles of the DIMM socket are in the “open” position. i.e. The handles lean outward. Slowly slide the DIMM module along the plastic guides on both ends of the socket. Then press the DIMM module right down into the socket, until you hear a click. This is when the two handles have automatically locked the memory module into the correct position of the DIMM socket. To remove the memory module, just push both handles outward, and the memory module will be ejected by the mechanism in the socket.

## 1.11 Cache Memory

The AIMB-267 KIOSK supports a CPU with one of the following built-in full speed L2 caches:

- 6 MB for Intel Core 2 Quad CPU
- 6 MB for Intel Core 2 Duo CPU
- 1 MB for Intel Pentium Duo Core CPU
- 512 KB for Intel Celeron CPU

The built-in second-level cache in the processor yields much higher performance than conventional external cache memories.

## 1.12 Processor Installation

The AIMB-267 KIOSK is designed for LGA775, Intel Core 2 Quad, Intel Core 2 Duo, Celeron and Intel Pentium dual core D processor.

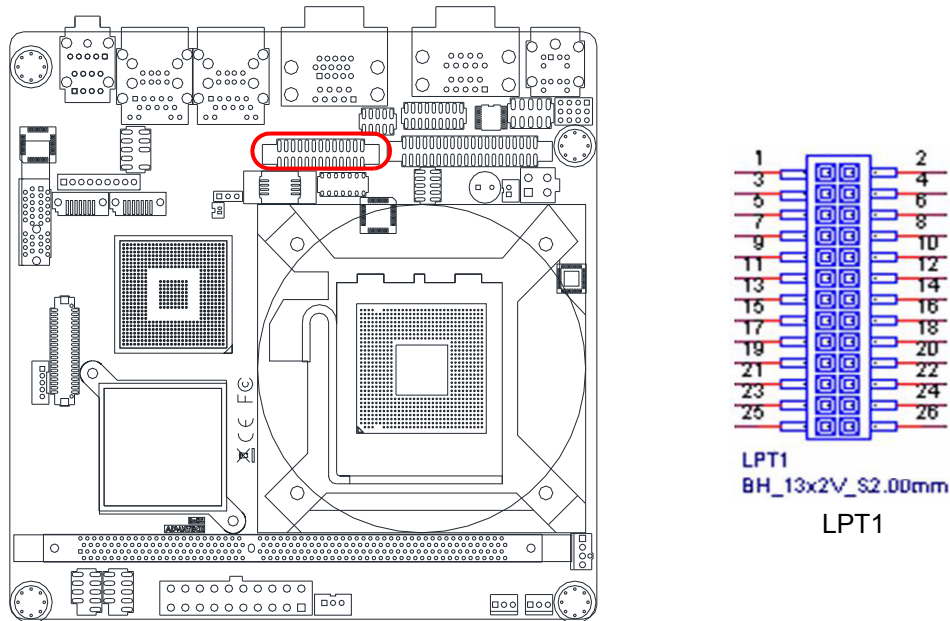
# Chapter 2

Connecting  
Peripherals

## 2.1 Introduction

You can access most of the connectors from the top of the board as it is being installed in the chassis. If you have a number of cards installed or have a packed chassis, you may need to partially remove a card to gain access to all the connections.

## 2.2 Parallel Port (LPT1)



The parallel port is normally used to connect the motherboard to a printer. The AIMB-267 KIOSK includes an onboard parallel port, accessed through a 25-pin flat-cable connector, LPT1.

**Table 2.1: Parallel Port (LPT1)**

pin1	LPT1_a_STB#	pin2	LPT1_AFD#
pin3	LPT1_a_PD0	pin4	LPT1_ERR#
pin5	LPT1_a_PD1	pin6	LPT1_INIT#
pin7	LPT1_a_PD2	pin8	LPT1_SLIN#
pin9	LPT1_a_PD3	pin10	GND
pin11	LPT1_a_PD4	pin12	GND
pin13	LPT1_a_PD5	pin14	GND
pin15	LPT1_a_PD6	pin16	GND
pin17	LPT1_a_PD7	pin18	GND
pin19	LPT1_ACK#	pin20	GND
pin21	LPT1_BUSY	pin22	GND
pin23	LPT1_PE	pin24	GND
pin25	LPT1_SLCT	pin26	GND



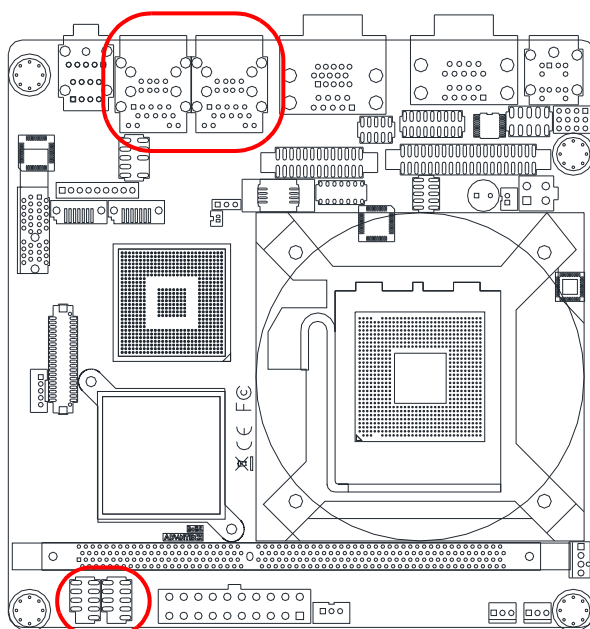
**Note!** The parallel cable is not enclosed in the box as a standard accessory. The order part number is 1700008809.



## 2.3 USB Ports (LAN1\_USB01/LAN2\_USB23/USB1/USB2)

The AIMB-267 KIOSK provides up to eight USB ports (Universal Serial Bus). The USB interface complies with USB Specification Rev. 2.0 supporting transmission rates up to 480 Mbps and is fuse protected. The USB interface can be disabled in the system BIOS setup.

The AIMB-267 KIOSK is equipped with two high-performance 1000 Mbps Ethernet LANs. They are supported by all major network operating systems. The RJ-45 jack is on the rear plate providing 1000Base-T operation.



LAN2\_USB23/LAN1\_USB01

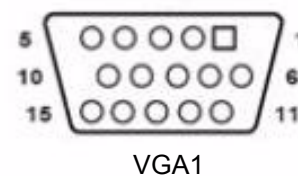
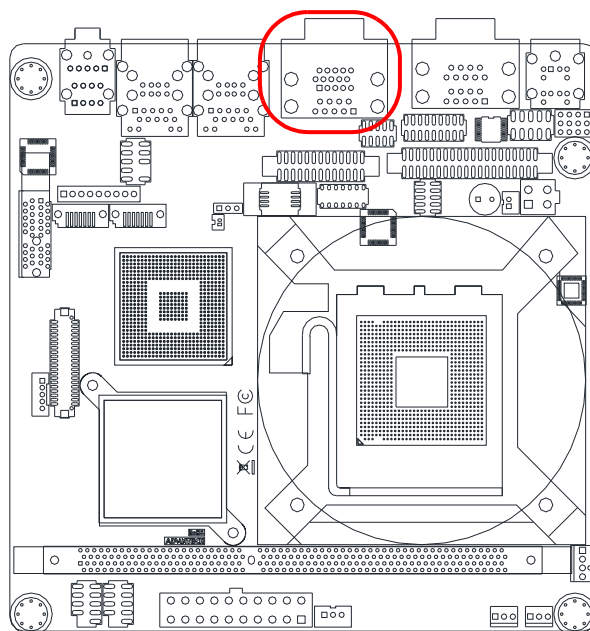


USB1/2

**Table 2.2: LAN LED Indicator**

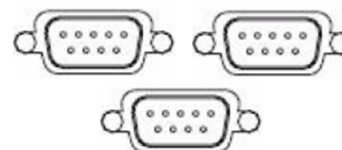
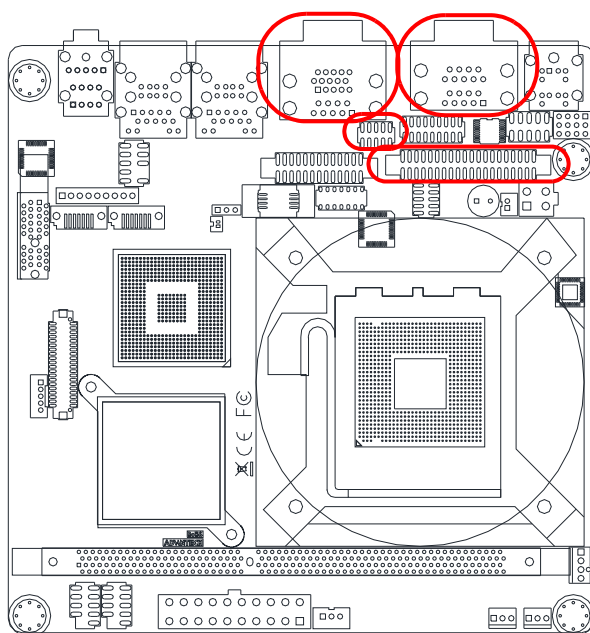
LAN Mode	Lan Indicator
1 Gbps Link on	LED1 Green on
100 Mbps Link on	LED1 Orange on
Active	LED2 Green flash

## 2.4 VGA Connector (VGA1)

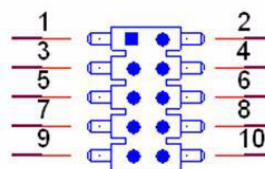


The AIMB-267 KIOSK includes a VGA interface that can drive conventional CRT displays. VGA1 is a standard 15-pin D-SUB connector commonly used for VGA. Pin assignments for CRT connector VGA1 are detailed in Appendix B.

## 2.5 Serial Ports (COM1~COM8)



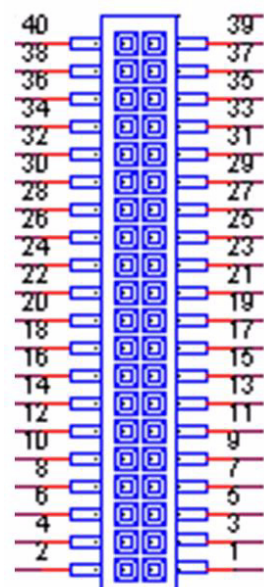
COM1/COM2/COM3



COM4

PH\_5x2V\_S2.00mm

COM4



COM5678

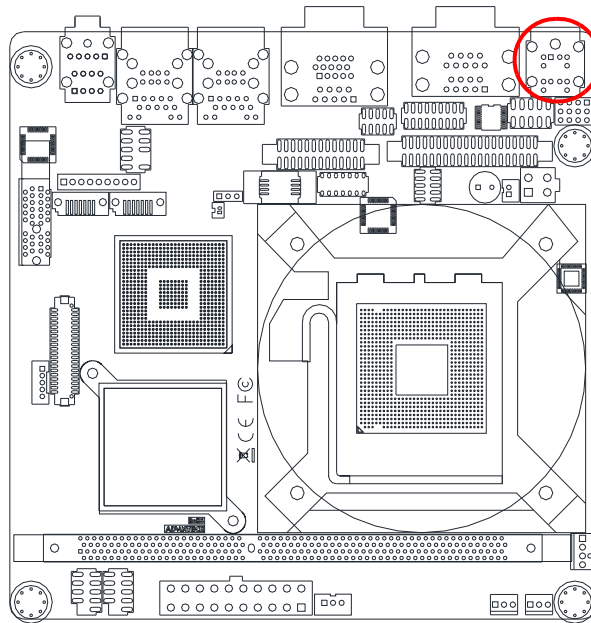
BH\_20x2V\_S2.00mm

COM5678

AIMB-267 KIOSK supports eight serial ports - seven RS-232, and one RS-232/422/485 - COM3. The user can use JSETCOM3 to select among RS 232/422/485 modes for COM3. These ports can connect to serial devices, such as a mouse or a printer, or to a communications network.

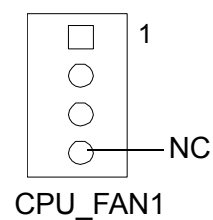
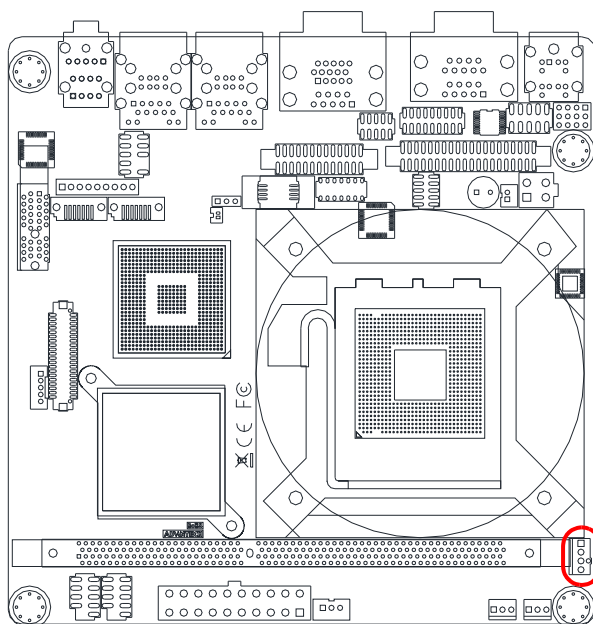
The IRQ and address ranges for both ports are fixed. However, if you want to disable the port or change these parameters later, you can do this in the system BIOS setup. Different devices implement the RS-232/422/485 standards in different ways. If you are having problems with a serial device, be sure to check the pin assignments for the connector.

## 2.6 PS/2 Keyboard and Mouse Connector (KBMS1)



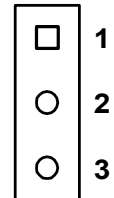
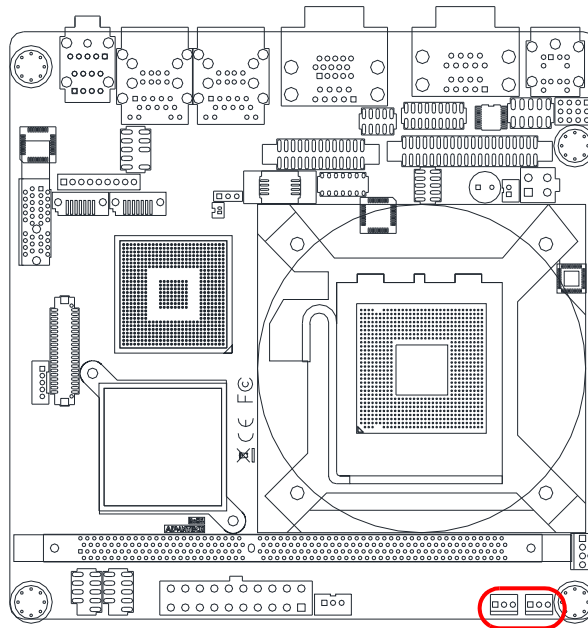
Two 6-pin mini-DIN connectors (KBMS1) on the motherboard provide connection to a PS/2 keyboard and a PS/2 mouse, respectively.

## 2.7 CPU Fan Connector (CPU\_FAN1)



If a fan is used, this connector supports cooling fans of 500 mA (6 W) or less.

## 2.8 System FAN Connector (SYS\_FAN1/2)

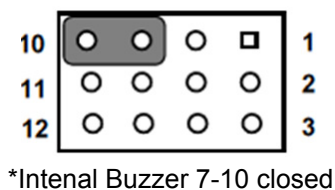
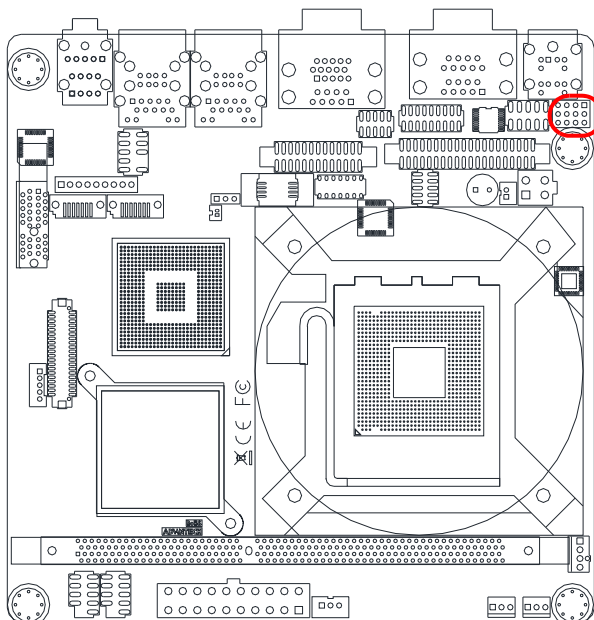


SYS\_FAN1/2

If a fan is used, this connector supports cooling fans of 500 mA (6 W) or less.

## 2.9 Front Panel Connectors (JFP1+JFP2)

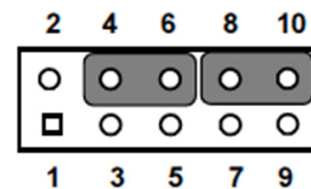
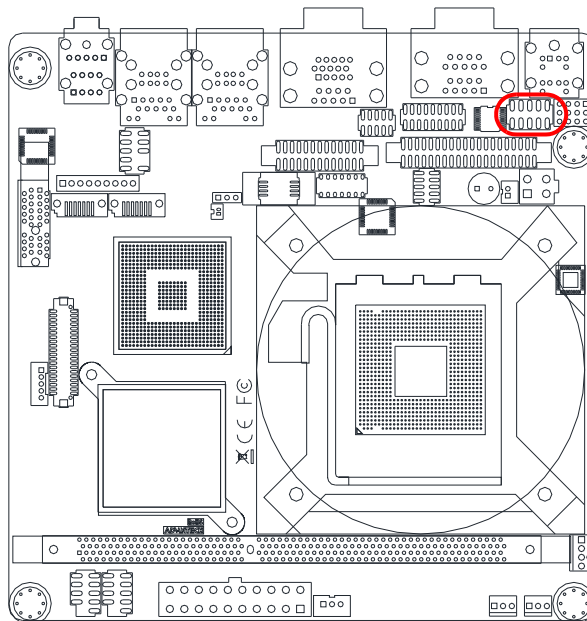
There are several external switches to monitor and control the AIMB-267 KIOSK. JFP1+JFP2 are for the front panel (Power switch/Reset/HDD LED/SNMP SMBus/Internal buzzer/External speaker).



**Table 2.3: Power Switch/RESET/HDD LED/SM Bus/Internal Buzzer/ External Speaker**

Closed Pins	Results
3-6	Power Button
9-12	SYstem Reset
2-5	HDD LED
8-11	SNMP SMBus
7-10*	Internal Buzzer*
1, 10	External Speaker
* Default	

## 2.10 JOBS1+JWDT1+JFP3 Connector



\*Watchdog Output to System  
Reset 4-6 closed

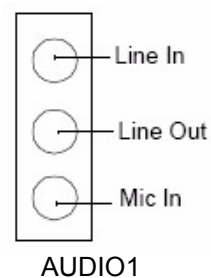
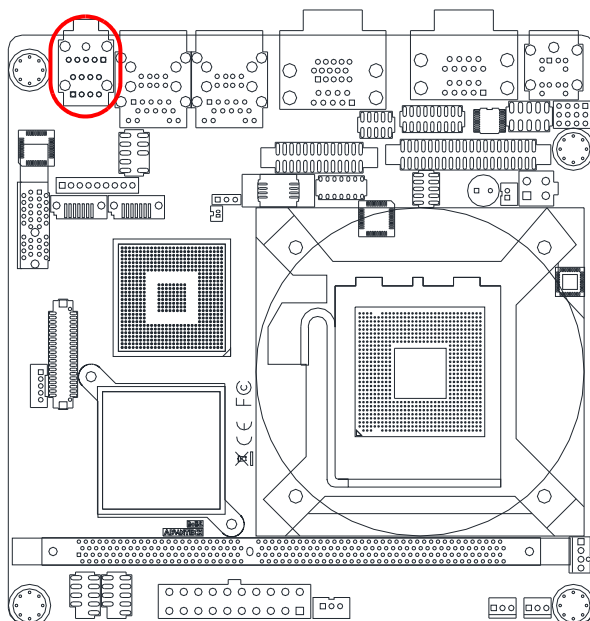
\*OSB Alarm 8-10 closed

**Table 2.4: JOBS1+JWDT1+JFP3 Connector**

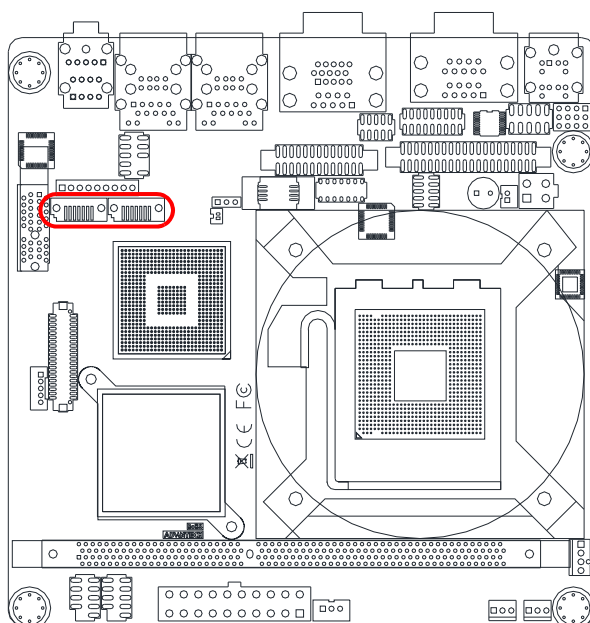
Closed Pins	Results
1-5	Front Panel Power LED
7-9	Keyboard Lock
4-6*	Watchdog Output to System Reset*
8-10*	OSB Alarm*
* Default	



## 2.11 Line In/Line Out/Mic In Connector (AUDIO1)



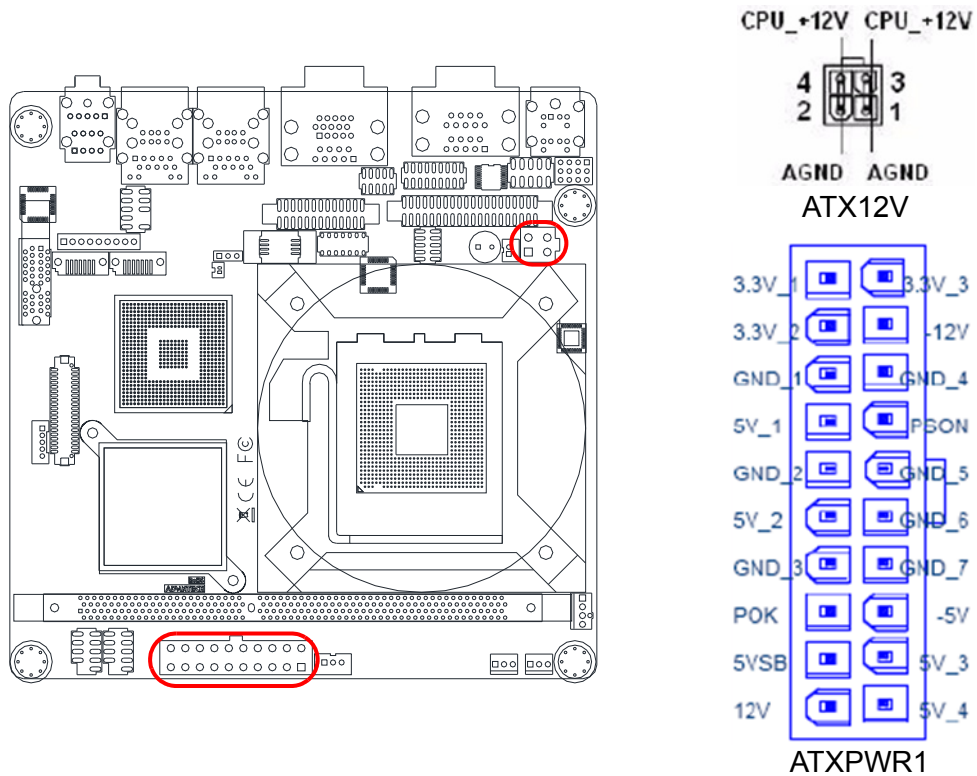
## 2.12 Serial ATA Interface (SATA1+SATA2)



AIMB-267 KIOSK features two high performance serial ATA interface (up to 300 MB/s) which eases cabling to hard drives with thin and long cables.

## 2.13 ATX Power Connector (ATX12V1+ATXPWR1)

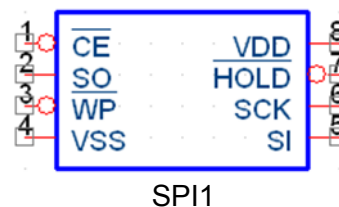
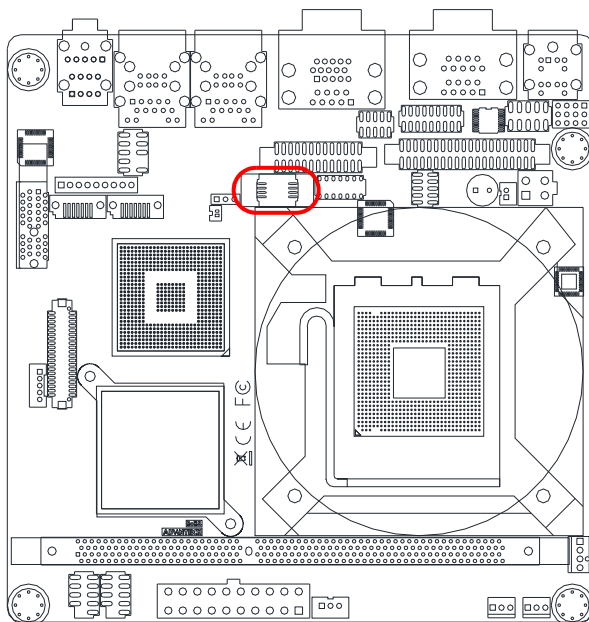
These connectors are for ATX power supply plugs. The power supply plugs are designed to fit these connectors in only one orientation. Find the proper orientation and push down firmly until the connectors completely fit.



- Note!**
1. Please do connect the ATX12V1 connector with the PSU ATX 12V 4-pin connector.
  2. For a fully configured system, we recommend that you use a power supply unit (PSU) that complies with ATX 12 V Specification 2.0 (or later version) and provides a minimum power of **270 W**.

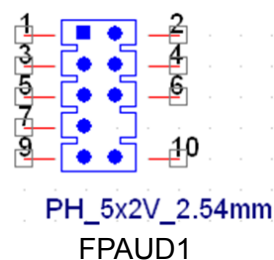
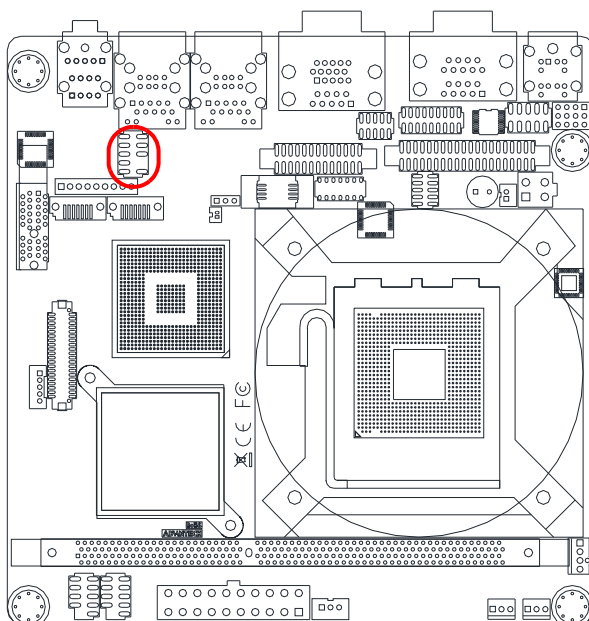


## 2.14 SPI BIOS Socket (SPI1)



## 2.15 Front Panel Audio Connector (FPAUD1)

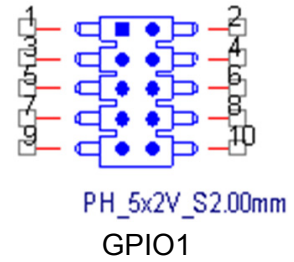
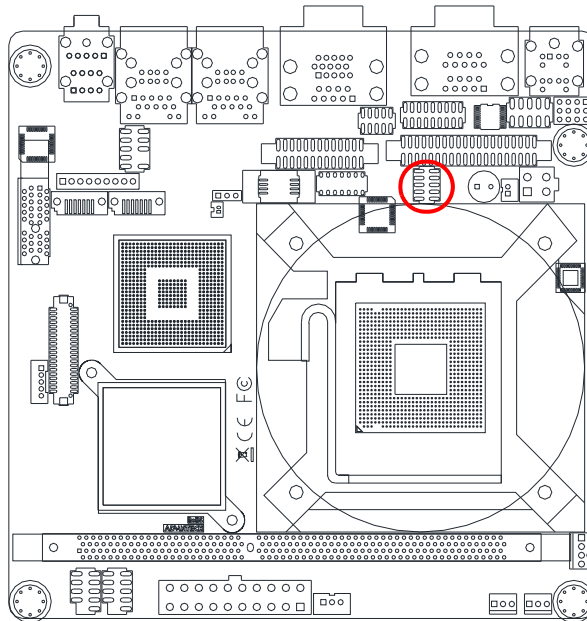
This connector is for a chassis mounted front panel audio I/O module that supports either HD Audio or legacy AC'97 (optional) audio standard. Connect one end of the front panel audio I/O module cable to this connector.



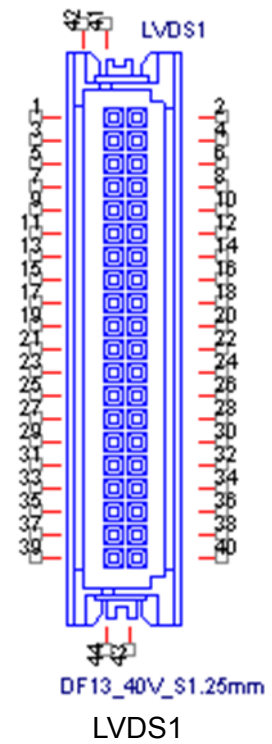
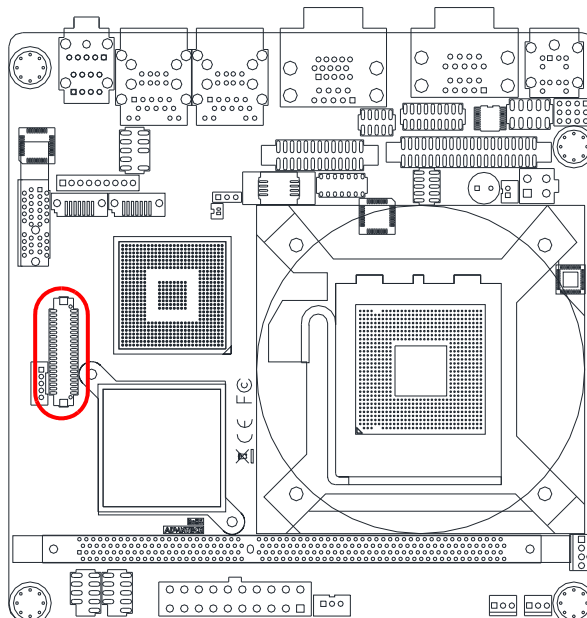
**Note!** For motherboards with the optional HD audio feature, we recommend that you connect a high-definition front panel audio module to this connector to avail of the motherboard's high definition audio capability.



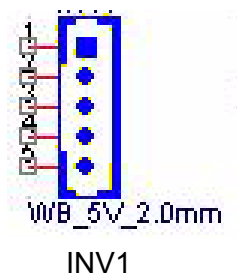
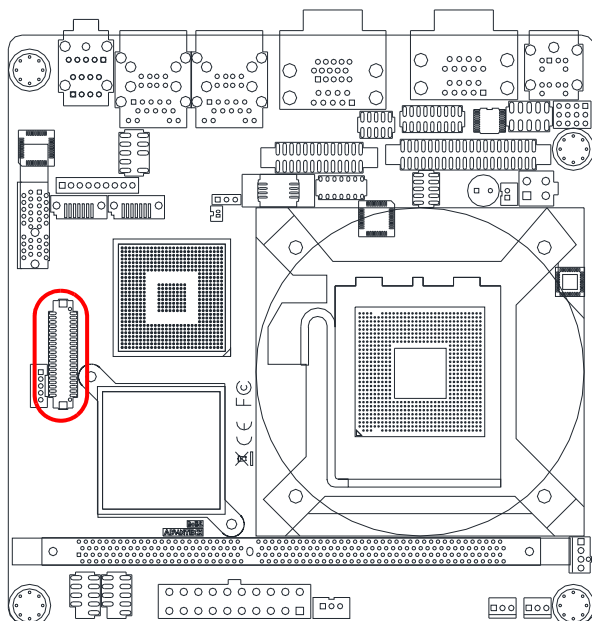
## 2.16 GPIO Pin Header (GPIO1)



## 2.17 LVDS Connector (LVDS1)



## 2.18 Inverter Connector for LVDS1 (INV1)



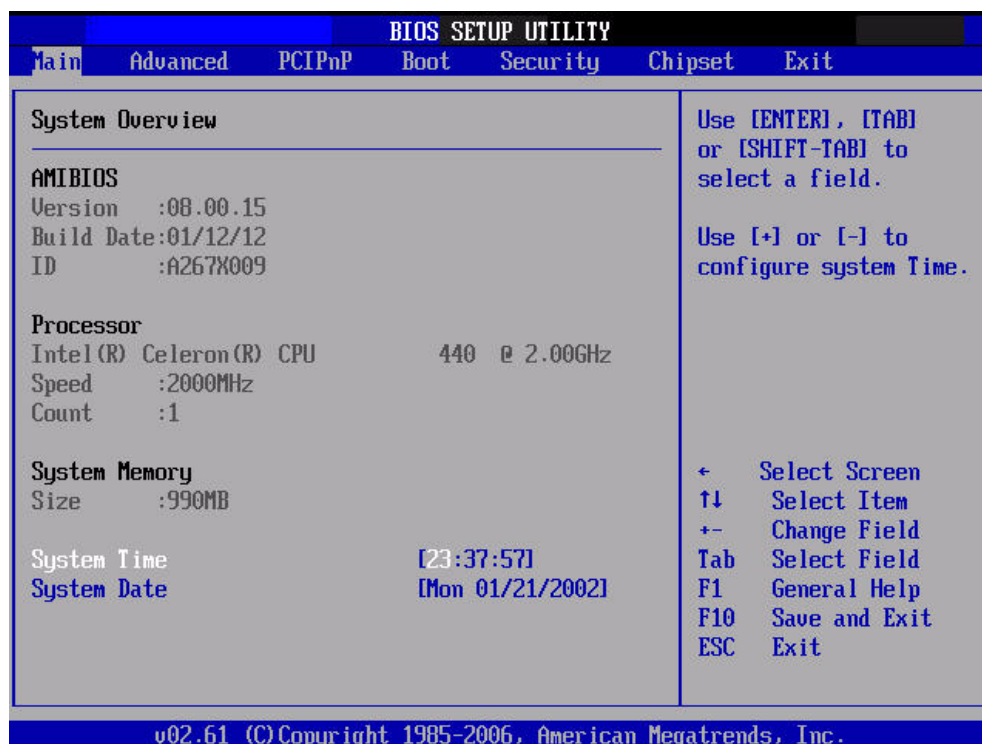


# Chapter 3

## BIOS Operation

## 3.1 Main Menu

Press <Del> to enter AMI BIOS CMOS Setup Utility, the Main Menu will appear on the screen. Use arrow keys to select among the items and press <Enter> to accept or enter the sub-menu.



The Main BIOS setup screen has two main frames. The left frame displays all the options that can be configured. Grayed-out options cannot be configured; options in blue can. The right frame displays the key legend.

Above the key legend is an area reserved for a text message. When an option is selected in the left frame, it is highlighted in white. Often a text message will accompany it.

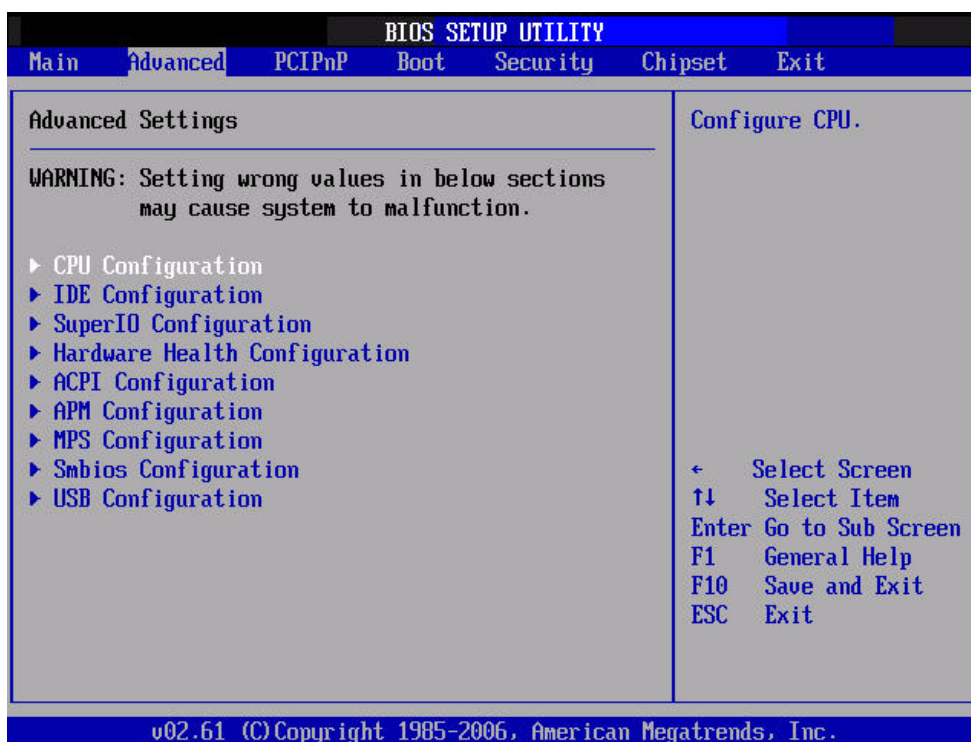
### ■ System time / System date

Use this option to change the system time and date. Highlight System Time or System Date using the <Arrow> keys. Enter new values through the keyboard. Press the <Tab> key or the <Arrow> keys to move between fields. The date must be entered in MM/DD/YY format. The time must be entered in HH:MM:SS format.

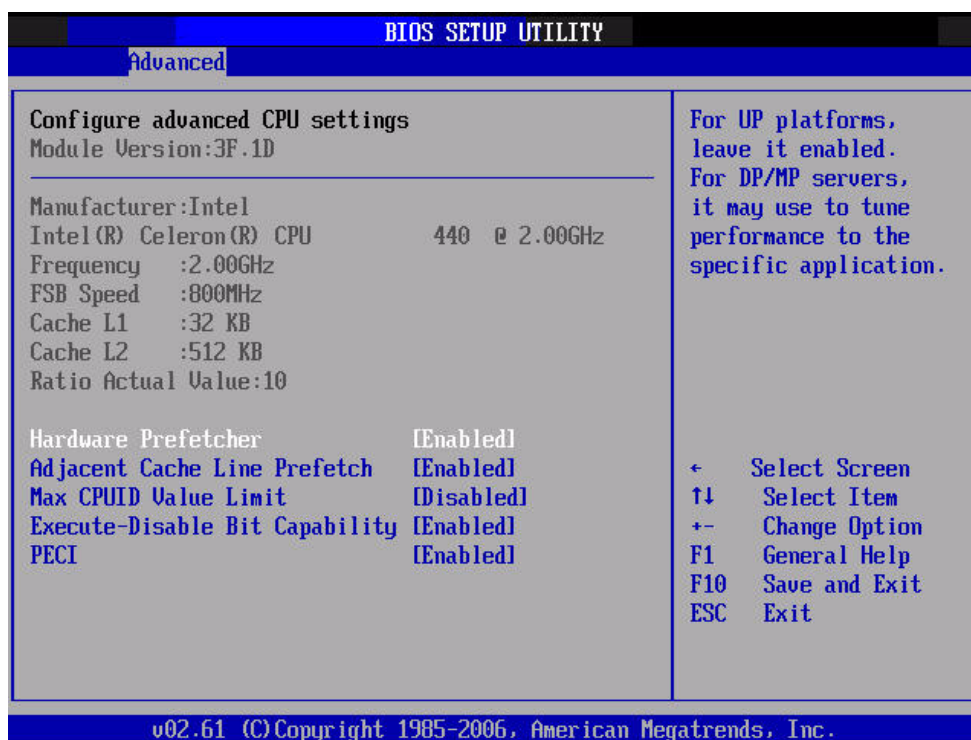


## 3.2 Advanced BIOS Setting

Use the <Arrow> keys to enter the Advanced BIOS Setup. You can select any of the items in the left frame of the screen, such as CPU Configuration, to go to the sub menu for that item. You can display an Advanced BIOS Setup option by highlighting it and using the <Arrow> keys. All Advanced BIOS Setup options are described in this section. The Advanced BIOS Setup screen is shown below. The sub menus are described on the following pages.



### 3.2.1 Configure Advanced CPU Setting



- **Hardware Prefetcher**  
Hardware Prefetcher is a technique that fetches instructions and/or data from memory into the CPU cache memory well before the CPU needs it. so that it can improve the load-to-use latency You may choose to enable or disable it.
- **Adjacent Cache Line Prefetch**  
The Adjacent Cache-Line Prefetch mechanism, like automatic hardware prefetch, operates without programmer intervention When enabled through the BIOS, two 64-byte cache lines are fetched into a 128-byte sector, regardless of whether the additional cache line has been requested or not. You may choose to enable or disable it.
- **Max CPUID Value Limit**  
Setting this item to [Enabled] allows legacy operating systems to boot even without support for CPUs with extended CPUID functions. Configuration options are "Enabled" or "Disabled".
- **Execute-Disable Bit Capability**  
This item allows you to enable or disable the No-Execution page protection technology.
- **PECI**  
Enable/Disable PECI.

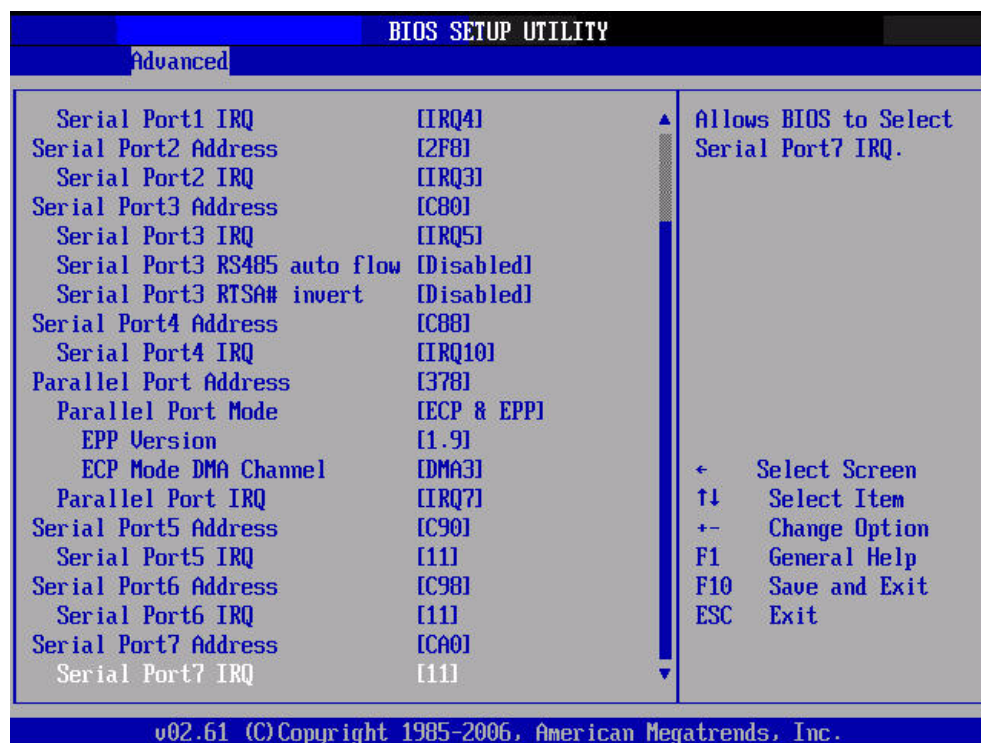
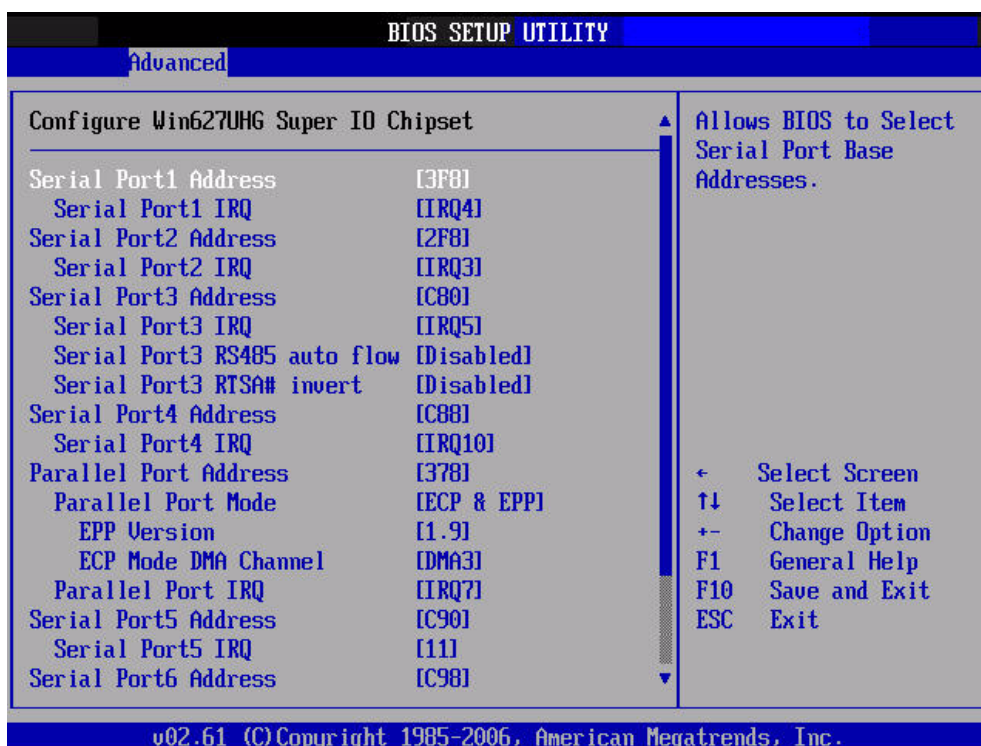
### 3.2.2 IDE Configuration



- **ATA/IDE Configuration**  
This can be configured as Disabled or Enhanced. If enhanced mode is turned on, primary, secondary and third IDE can be configured.
- **Hard Disk Write Protect**  
This will be effective only if the device is accessed through BIOS. You may choose to enable or disable it.
- **IDE Detect Time Out (sec)**  
Select the time out value for detecting IDE devices.

- **ATA (PI) 80 Pin Cable Detection**  
This item is for ATA 80 pin cable detection.

### 3.2.3 Super I/O configuration



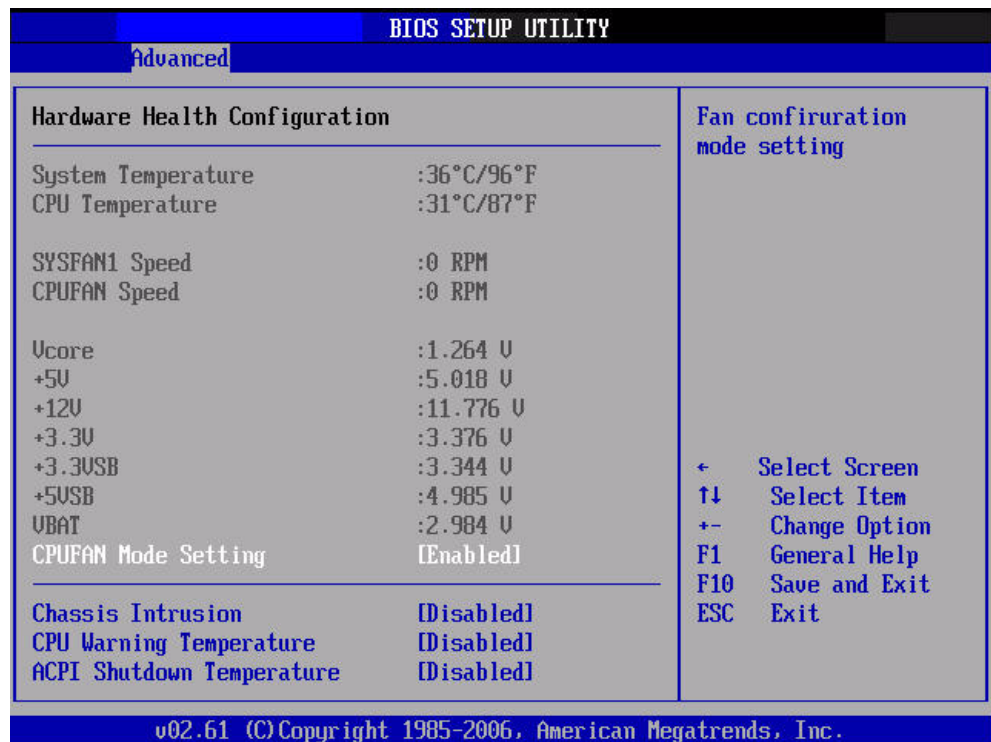
- **Serial Port Address**  
This item enables users to set the super I/O device status, including enabling of COMs.

- **Parallel Port Address**

This configures parallel port base addresses. The following options are also available:

- Parallel Port Mode  
This option configures Parallel Port mode. Available options include ECP & EPP/EPP/ECP/Bi-directional/Normal.
- Parallel Port IRQ

### 3.2.4 Hardware Health Configuration



- **Chassis Intrusion**

Gives warning message beeping sounds when the case has been opened.

- **CPU warning temperature**

Use this to set the CPU warning temperature threshold. When the system CPU reaches the warning temperature, the buzzer will beep.

- **ACPI Shut Down Temperature**

This screen allows users to set the CPU temperature at which the system will automatically shut down to prevent the CPU from overheating damage.

- **System Temperature**

The onboard hardware monitor automatically detects and displays the system temperature.

- **CPU Temperature**

The onboard hardware monitor automatically detects and displays the CPU temperature.

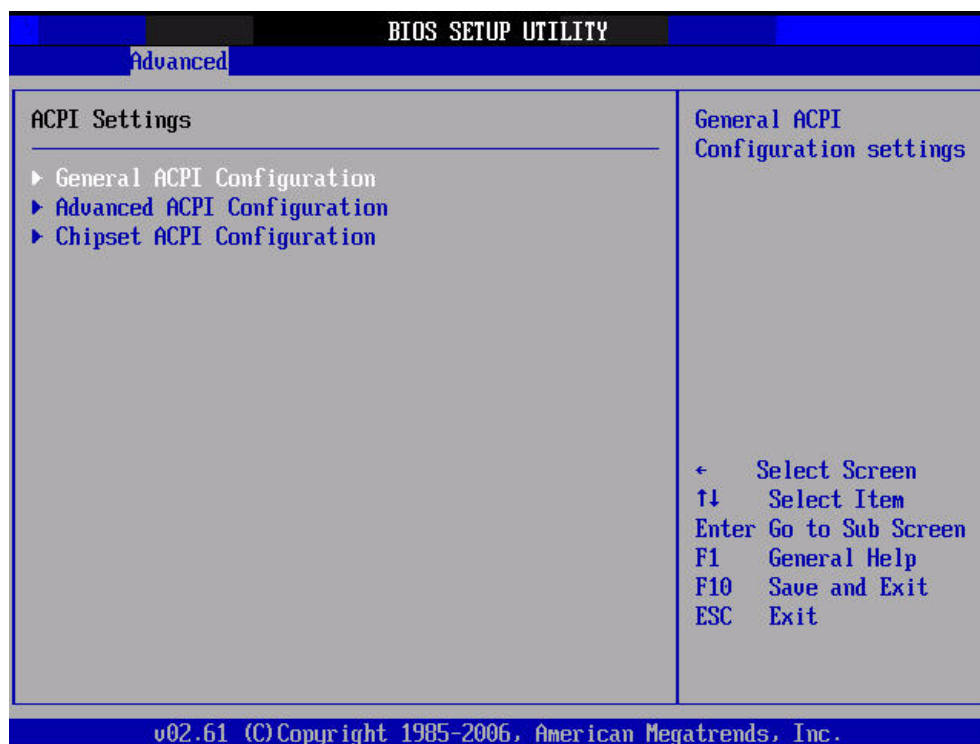
- **CPU FAN Speed**

Shows CPU FAN speed [xxxxRPM].

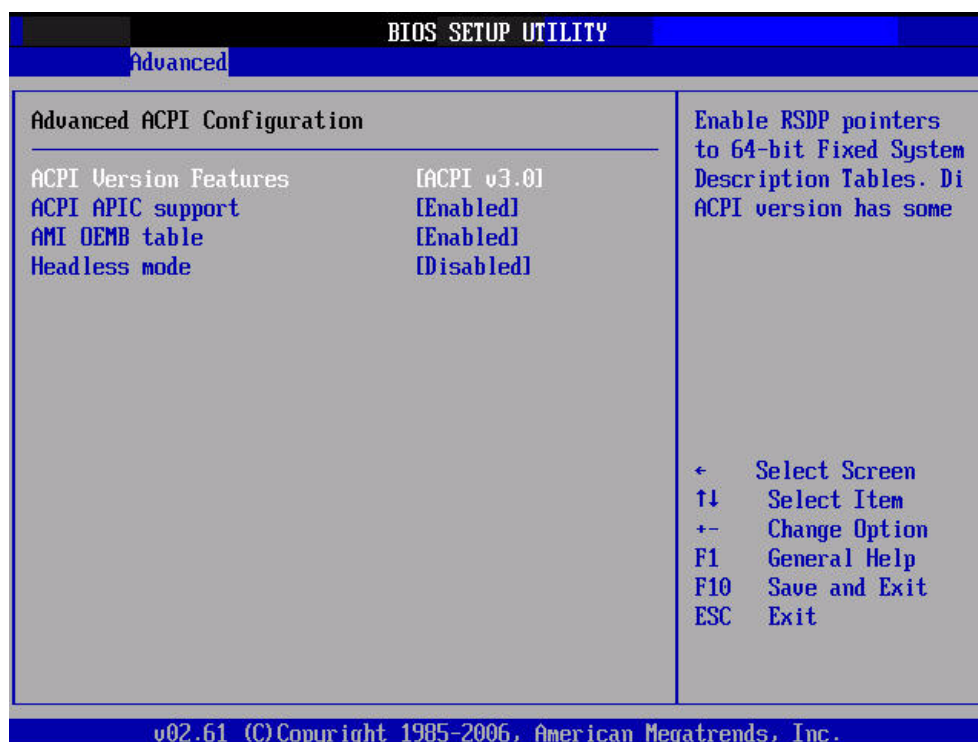
- **SYSTEMFAN1 Speed**

Shows SYSTEMFAN1 speed [xxxxRPM].

### 3.2.5 ACPI Setting



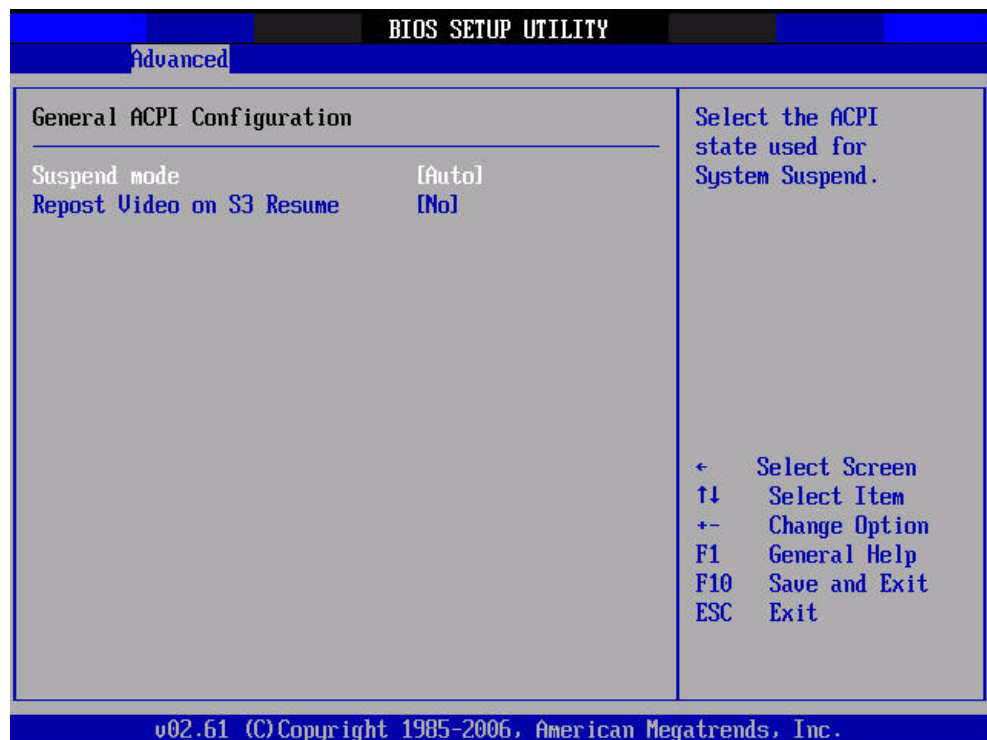
#### 3.2.5.1 Advanced ACPI Configuration





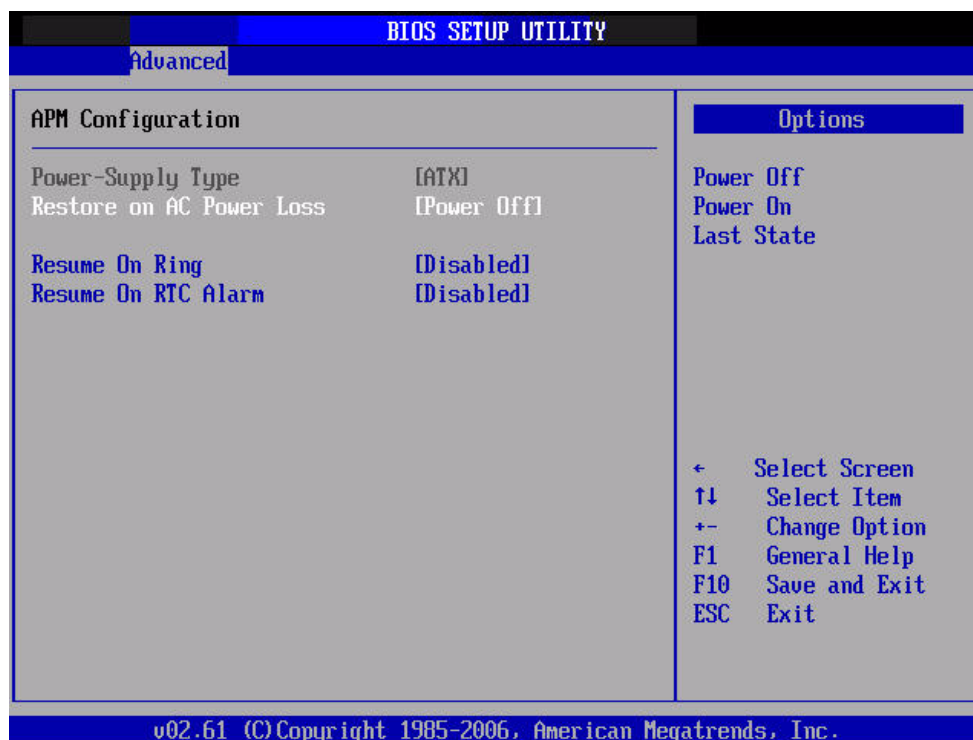
- **ACPI APIC Support**  
Enable/Disable ACPI APIC support.
- **AMI OEMB Table**  
Set this value to allow ACPIBIOS to add a pointer to an OEMB table in the Root System Description Table (RSDT) table.  
Options: Enabled (Default) / Disabled.
- **Headless Mode**  
This is a server-specific feature. A headless server is one that operates without a keyboard, monitor or mouse. To run in headless mode, both BIOS and operating system (e.g. Windows Server 2003) must support headless operation.  
Options: Disabled (Default) / Enabled.

### 3.2.5.2 General ACPI Configuration



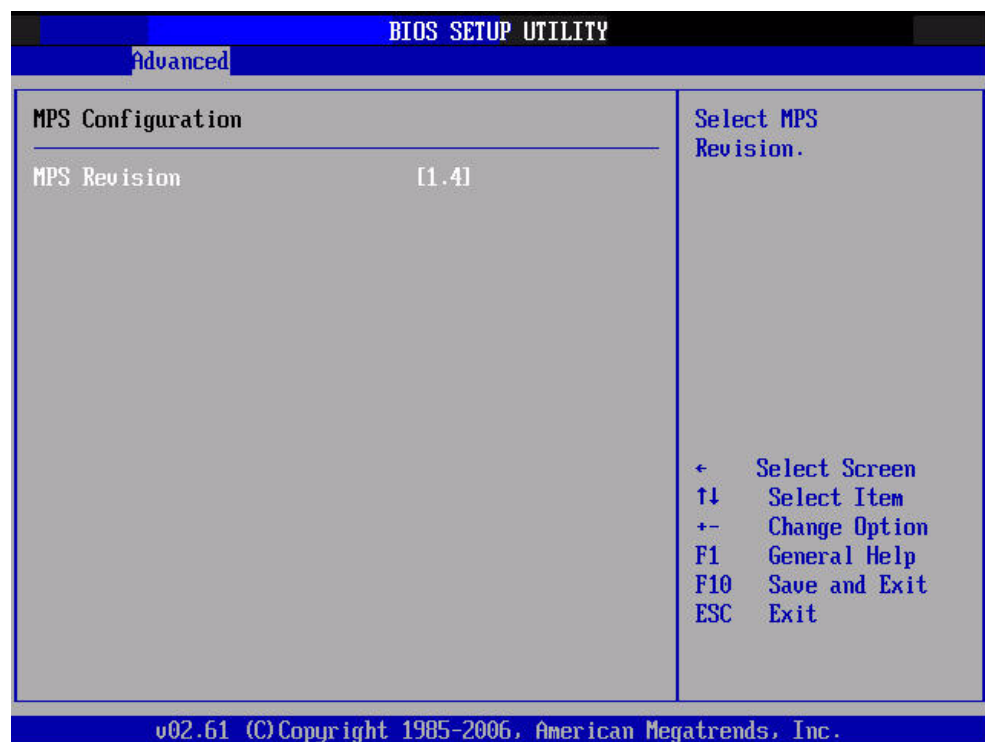
- **Suspend Mode**  
Allows you to select the Advanced Configuration and Power Interface (ACPI) state to be used for system suspend.  
  - [Auto] The system automatically configures the ACPI suspend mode.
  - [S1 (POS) only] Sets the ACPI suspend mode to S1/POS (Power On Suspend).
  - [S3 only] Sets the ACPI suspend mode to S3/STR (Suspend to RAM).

### 3.2.6 APM Configuration



- **Restore on AC Power Loss**  
When set to [Power Off], the system goes into an off state after an AC power loss. When Set to [Power On], the system goes into an on state after an AC power loss. When set to [Last State], the system goes into either an on or off state - whatever the system state was before the AC power loss. Configuration options:[Power Off][Power On][Last State].
- **Resume On Ring**  
This allows either settings of [Enabled] or [Disabled] for powering up the computer when the external modem receives a call while the computer is in Soft-off mode. Configuration options:[Disabled][Enabled].
- **Resume On RTC Alarm**  
Allows you to enable or disable RTC to generate a wake event. When this item is set to Enabled, the items RTC Alarm Date, RTC Alarm Hour, RTC Alarm Minute, and RTC Alarm Second appear with set values. Configuration options:[Disabled][Enabled].

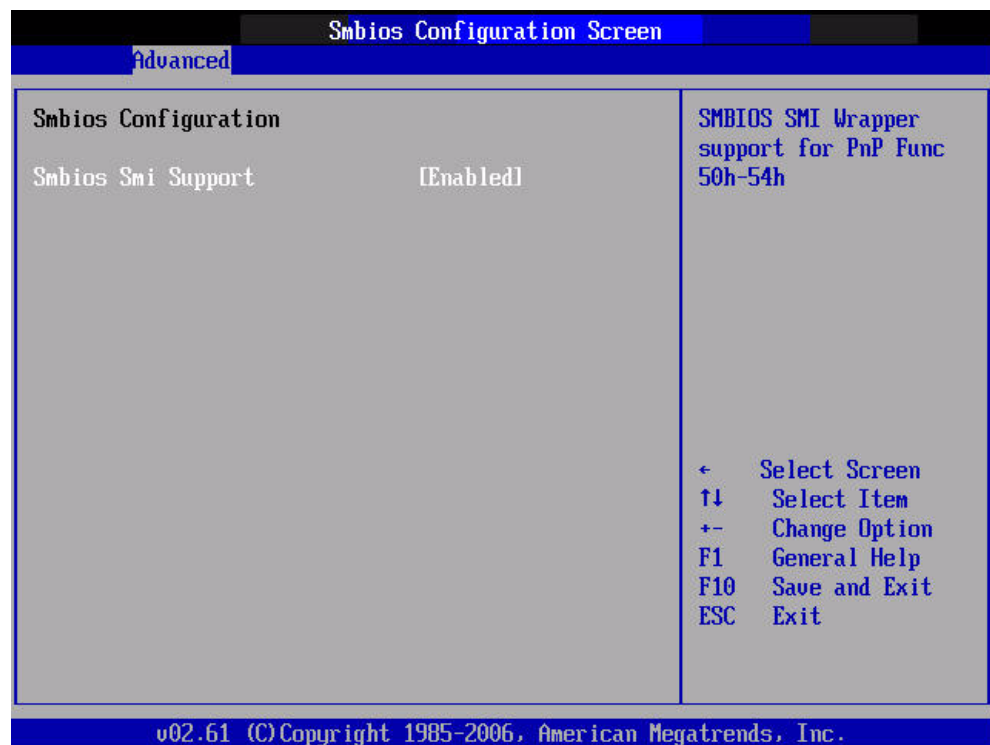
### 3.2.7 MPS Configuration



#### ■ MPS Revision

This item will allow you to choose the version of MPS table to fit your OS system.

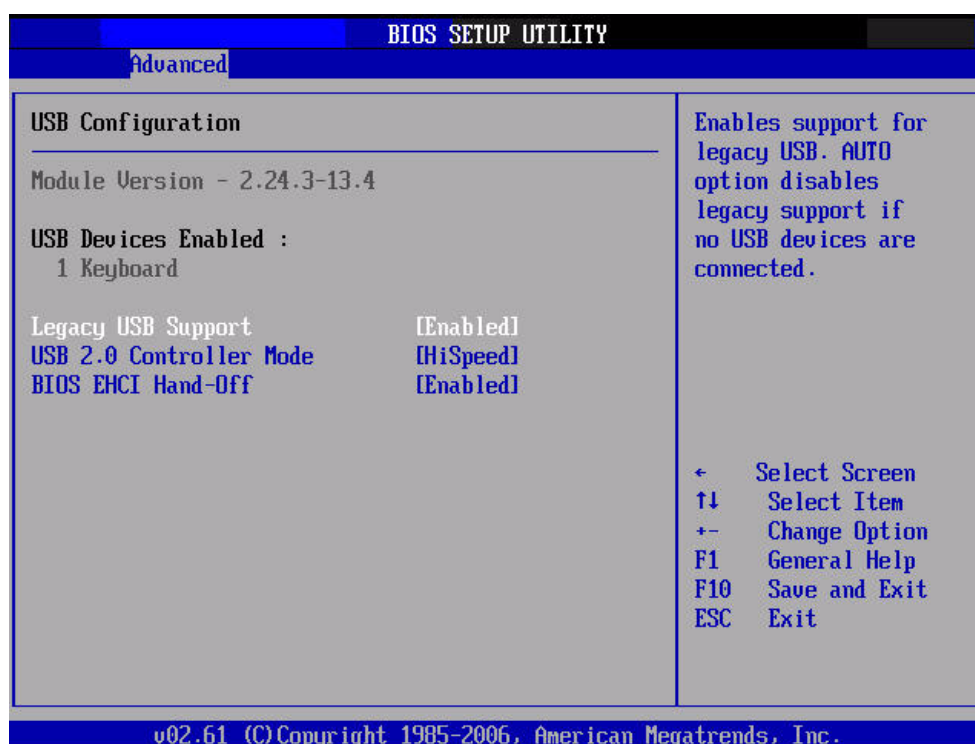
### 3.2.8 Smbios Configuration





- **Smbios SMI support**  
Enable or disable the SMI wrapper support.

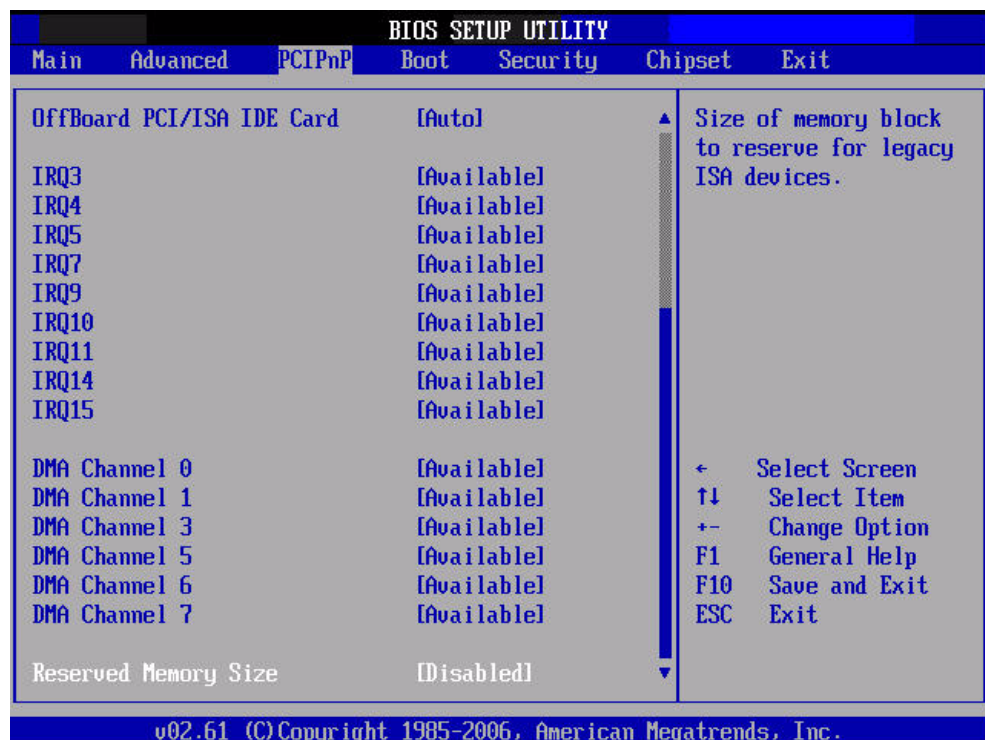
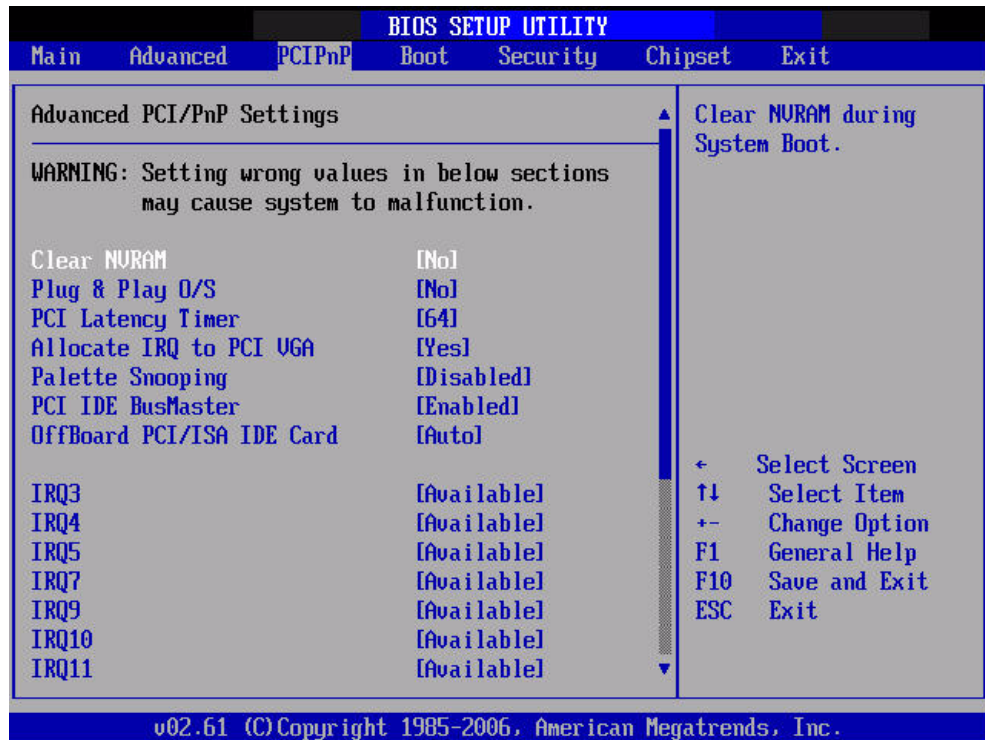
### 3.2.9 USB Configuration



- **Legacy USB Support**  
This is for supporting USB device under legacy OS such as DOS. When choosing "AUTO", the system will automatically detect if any USB device is plugged into the computer and enable USB legacy mode when a USB device is plugged and disable USB legacy mode when no USB device is plugged.
- **USB 2.0 Controller Mode**  
This is to set speed of the USB 2.0 Controller.
- **BIOS EHCI Hand-off**  
This enables or disables supporting OS without EHCI hand-off feature.

### 3.3 Advanced PCI/PnP Setting

Select the PCI/PnP tab from the AIMB-267 KIOSK setup screen to enter the Plug and Play BIOS Setup screen. You can display a Plug and Play BIOS Setup option by highlighting it using the <Arrow> keys. All Plug and Play BIOS Setup options are described in this section. The Plug and Play BIOS setup screen is shown below.



- **Clear NVRAM**  
Set this value to force the BIOS to clear the Non-Volatile Random Access Memory (NVRAM). The Optimal and Fail-Safe default setting is No.
- **Plug and Play O/S**  
Set this value to allow the system to modify the settings for Plug and Play operating system support. The Optimal and Fail-Safe default setting is No.
- **PCI Latency Timer**  
Use this to adjust the PCI Latency Timer. This option sets the latency of all PCI devices on the PCI bus. The Optimal and Fail-Safe default setting is 64.
- **Allocate IRQ to PCI VGA**  
Set this value to allow or stop the system from giving the VGA adapter card an interrupt address. The Optimal and Fail-Safe default setting is Yes.
- **Palette Snooping**  
Set this value to allow the system to modify the Palette Snooping settings. The Optimal and Fail-Safe default setting is "Disabled".
- **PCI IDE BusMaster**  
Set this value to allow or prevent the use of PCI IDE Busmastering. The Optimal and Fail-Safe default setting is enabled.
- **Off Board PCI/ISA IDE card**  
Set this value to allow an add-on PCI/ISA IDE card to be selected. The Optimal and Fail-Safe default setting is Auto.
- **IRQ**  
You may choose available or reserve. If you choose available, the IRQ will be assigned to PCI.
- **DMA channel**  
You may choose available or reserve, If you choose available, the DMA channel will be assigned to PCI.
- **Reserved memory size**  
Size of memory block to reserve for legacy ISA devices.

## 3.4 Boot Setting



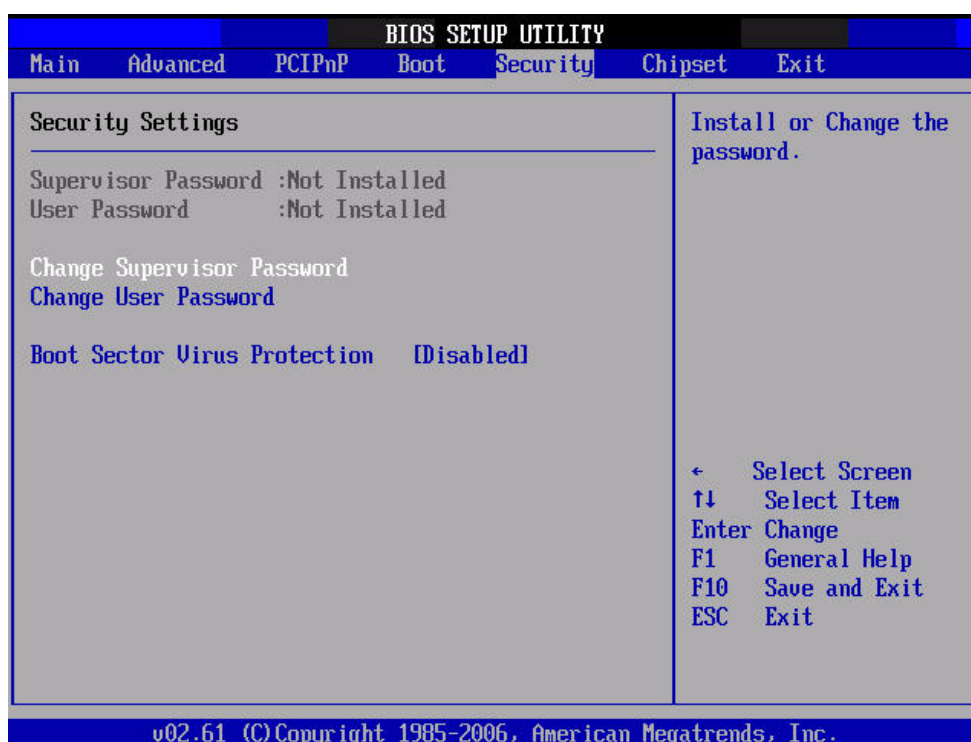
The following options are available:

- **Quick Boot**

Allows the BIOS to skip certain tests while booting. This will decrease the time needed to boot the system.

- **Quiet Boot**  
If this option is set to Disabled, the BIOS displays normal POST messages. If Enabled, an OEM Logo is shown instead of POST messages.
- **AddOn ROM Display Mode**  
This is for choosing display mode of option ROM information under DOS environment during booting up process, Available options include Force BIOS, Keep Current.
- **Bootup Num-Lock**  
Select the Power-on state for Numlock.
- **PS/2 Mouse Support**  
Enable or disable PS/2 interface mouse support Available options include Auto, Enable, Disable.
- **Wait For 'F1' If Error**  
Wait for the F1 key to be pressed if an error occurs.
- **Hit 'DEL' Message Display**  
Displays "Press DEL to run Setup" in POST.
- **Interrupt 19 Capture**  
Enable or disable option ROM to trap interrupt 19.

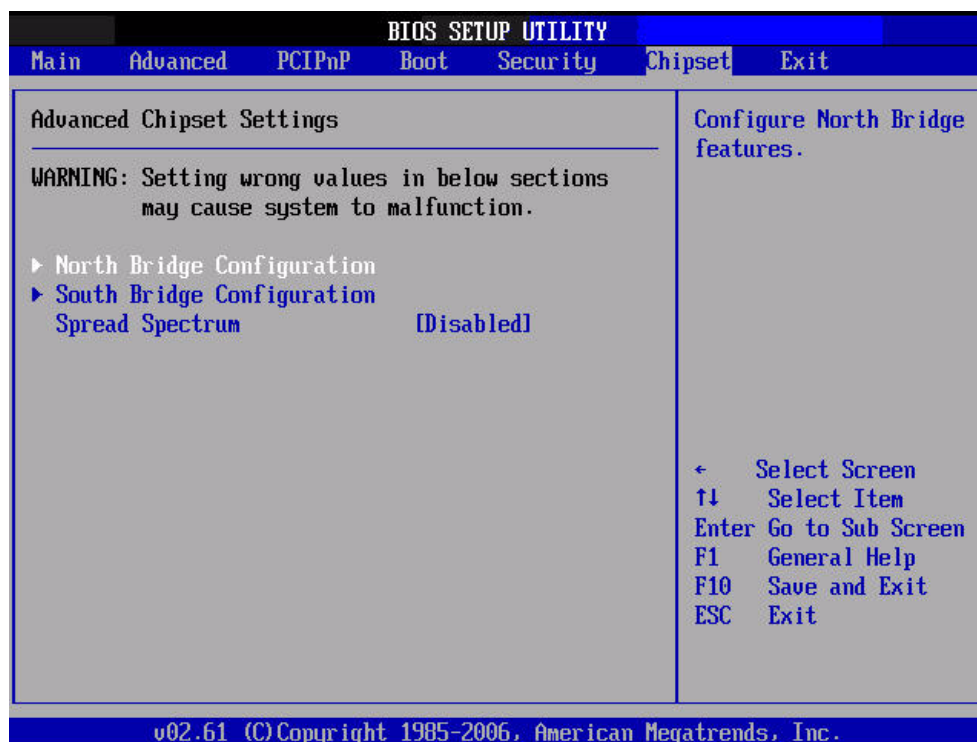
## 3.5 Security Setting



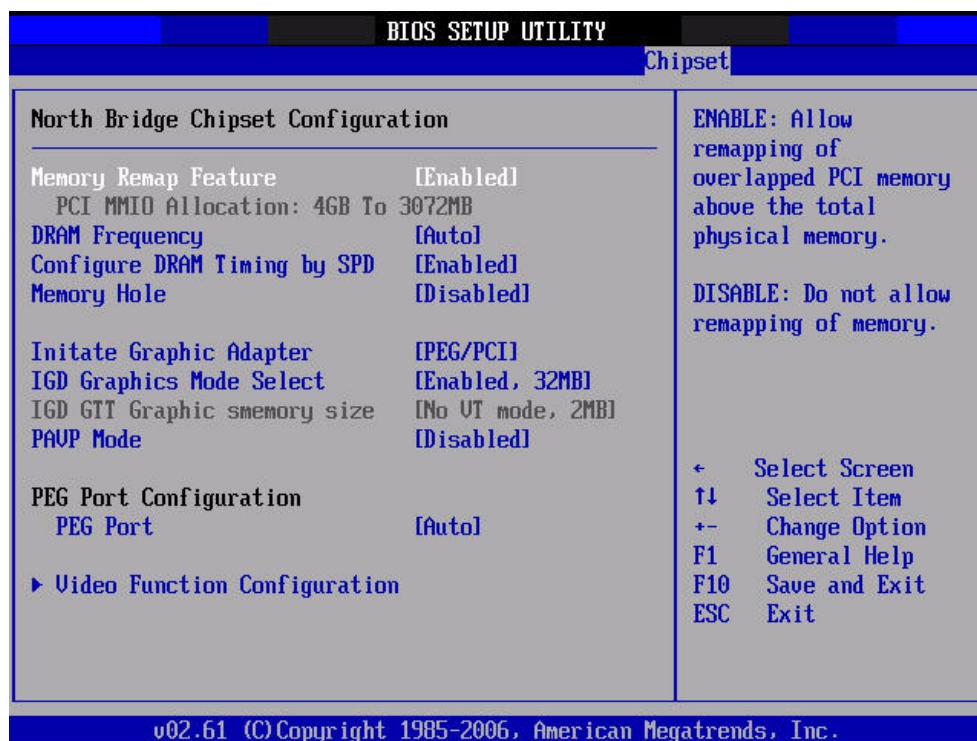
Select Security Setup from AIMB-267 KIOSK Setup main menu. All Security Setup options, such as password protection and virus protection are described in this section. To access the sub menu for the following items, select the item and press <Enter>:

- **change Supervisor / User Password**  
Provides for either installing or changing the password.
- **Boot Sector Virus Protection**  
The boot sector virus protection will warn if any program tries to write to the boot sector.

## 3.6 Advanced Chipset Setting

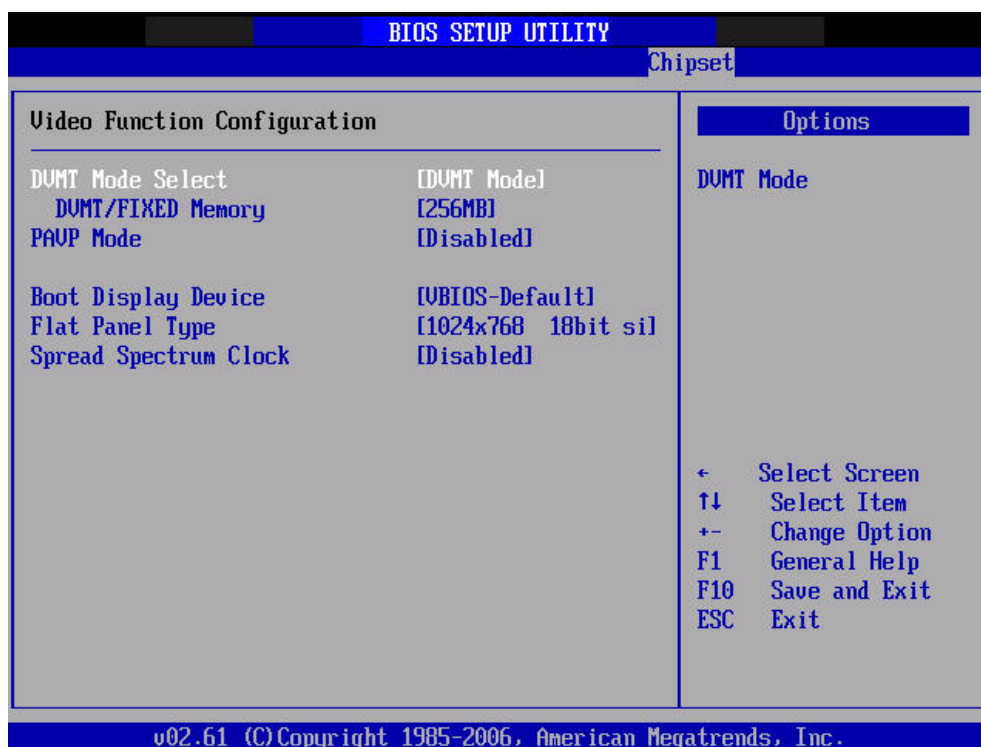


### 3.6.1 North Bridge Chipset Configuration





- **Memory Remap Feature**  
The feature allows you to enable or disable the remapping of the overlapped PCI memory above the total physical memory.
- **DRAM Frequency**  
Allows users to set DDR3 memory operating frequency.
- **Configure DRAM Timing by SPD**  
Allows users to set DRAM operating timing coefficients by SPD or Manual.
- **Memory Hole**  
15-16 MB of memory block reserved for legacy ISA devices. You may choose disable and 15-16 MB.
- **Initiate Graphic Adapter**  
Allows users to set initial video output device. Available options include IGD, PCI/ IGD.
- **Internal Graphics Mode Select**  
Allows users to set graphic mode for DOS environment. Available options include Disable, Enable 32 MB, Enable 64 MB and Enable 128 MB.
- **PEG Port Configuration**  
Enabled/Disabled PEG port configuration.
- **Video Function Configuration**  
This allows users to set IGD (Integrated Graphics Device) configuration.



- DVMT model select  
Displays the active system memory mode.  
DVMT / FIXED Memory: Specify the amount of DVMT / FIXED system memory to allocate for video memory.
- PAVP Mode  
GMCH protected Audio Video Path (PAVP) BIOS support.
- Boot Display Device  
Choose the boot display device. The available options are VBIOS default, CRT and LVDS.

- Flat Panel Type:
  - 640x480 18-bit
  - 800x600 18-bit
  - 1024x768 18-bit
  - 1600x1200 24-bit dual channel
- Spread Spectrum Clock
 

Enabling spread spectrum function gives better EMI compatibility but may cause some unexpected peripheral device incompatibility issues.

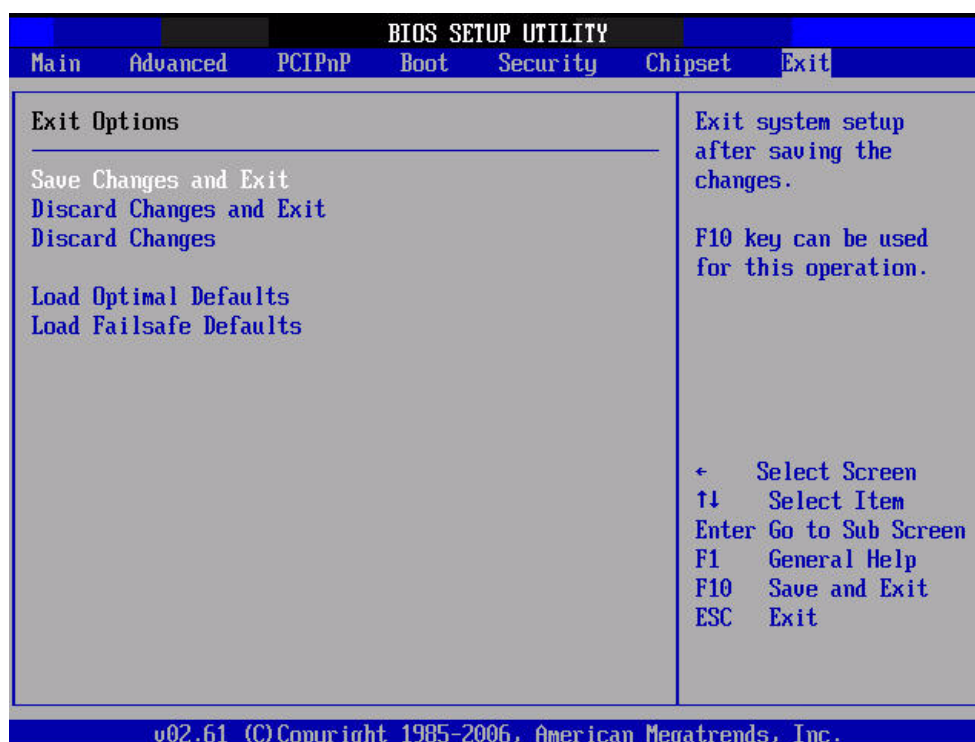
### 3.6.2 South Bridge Chipset Configuration



- **USB Functions**  
Select: Disabled, 2 USB Ports, 4 USB Ports, 6 USB Ports or 8 USB Ports.
- **USB 2.0 Controller**  
Enables or disables the USB 2.0 controller.
- **Audio controller**  
Allows users to choose Auto or Azalia to manage the audio controller.
- **SMBUS Controller**  
Enables or disables the SMBUS controller.
- **SLP\_S4# Min. Assertion Width**  
This item allows you to set a delay of a set number of seconds.
- **LAN 1/2 Controller**  
Enables or disables the LAN 1/2 GbE controller(s). The options below are also available.
  - Boot from LAN 1/2  
Allows users to enable or disable the function of LAN booting from a PXE server.
  - Resume on LAN 1/2  
Allows users to enable or disable the function of system resuming from LAN 1/2.



## 3.7 Exit Options



### ■ Save Changes and Exit

When you have completed system configuration, select this option to save your changes, exit BIOS setup and reboot the computer so the new system configuration parameters can take effect.

1. Select Save Changes and Exit from the Exit menu and press <Enter>.

The following message appears:

Save Configuration Changes and Exit Now?  
[Ok] [Cancel]

2. Select Ok or Cancel.

### ■ Discard Changes and Exit

Select this option to quit Setup without making any permanent changes to the system configuration.

1. Select Save Changes and Exit from the Exit menu and press <Enter> The following message appears:

Save Configuration Changes and Exit Now?  
[Ok] [Cancel]

2. Select Ok to discard changes and exit

### ■ Discard Changes

Select Discard Changes from the Exit menu and press <Enter>.

### ■ Load Optimal Defaults

The AIMB-267 KIOSK automatically configures all setup items to optimal settings when you select this option. Optimal Defaults are designed for maximum system performance, but may not work best for all computer applications. In particular, do not use the Optimal Defaults if your computer is experiencing system configuration problems. Select Load Optimal Defaults from the Exit menu and press <Enter>.

---

■ **Load Failsafe Defaults**

The AIMB-267 KIOSK automatically configures all setup options to failsafe settings when you select this option. Failsafe Defaults are designed for maximum system stability, but not maximum performance. Select Failsafe Defaults if your computer is experiencing system configuration problems.

1. Select Load Failsafe Defaults from the Exit menu and press <Enter>. The following message appears:

Load Failsafe Defaults?  
[OK] [Cancel]

2. Select "OK" to load Failsafe defaults.

# Chapter 4

Chipset Software  
Installation Utility

## 4.1 Before you begin

To facilitate the installation of the enhanced display drivers and utility software, read the instructions in this chapter carefully. The drivers for AIMB-267 KIOSK are located on the software installation CD. The driver in the folder of the driver CD will guide and link you to the utilities and drivers under a Windows system. Updates are provided via Service Packs from Microsoft\*.

**Note!** *The files on the software installation CD are compressed. Do not attempt to install the drivers by copying the files manually. You must use the supplied SETUP program to install the drivers.*



Before you begin, it is important to note that most display drivers need to have the relevant software application already installed in the system prior to installing the enhanced display drivers. In addition, many of the installation procedures assume that you are familiar with both the relevant software applications and operating system commands. Review the relevant operating system commands and the pertinent sections of your application software's user manual before performing the installation.

## 4.2 Introduction

The Intel Chipset Software Installation (CSI) utility installs the Windows INF files that outline to the operating system how the chipset components will be configured. This is needed for the proper functioning of the following features:

- Core PCI PnP services
- IDE Ultra ATA 100/66/33 and Serial ATA interface support
- USB 1.1/2.0 support (USB 2.0 driver needs to be installed separately for Win98)
- Identification of Intel chipset components in the Device Manager
- Integrates superior video features. These include filtered sealing of 720 pixel DVD content, and MPEG-2 motion compensation for software DVD

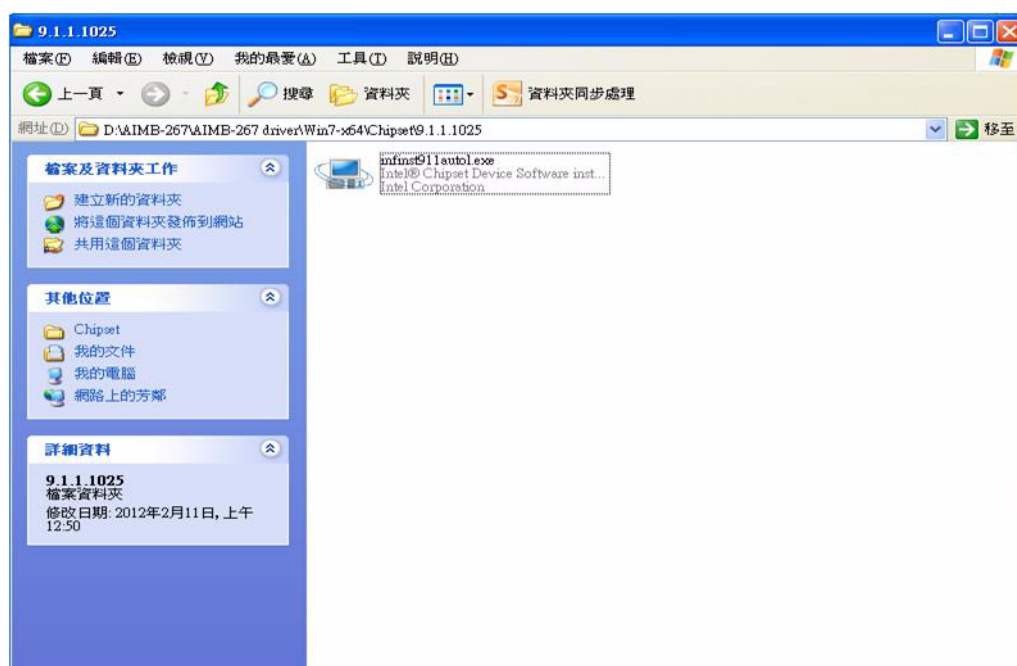
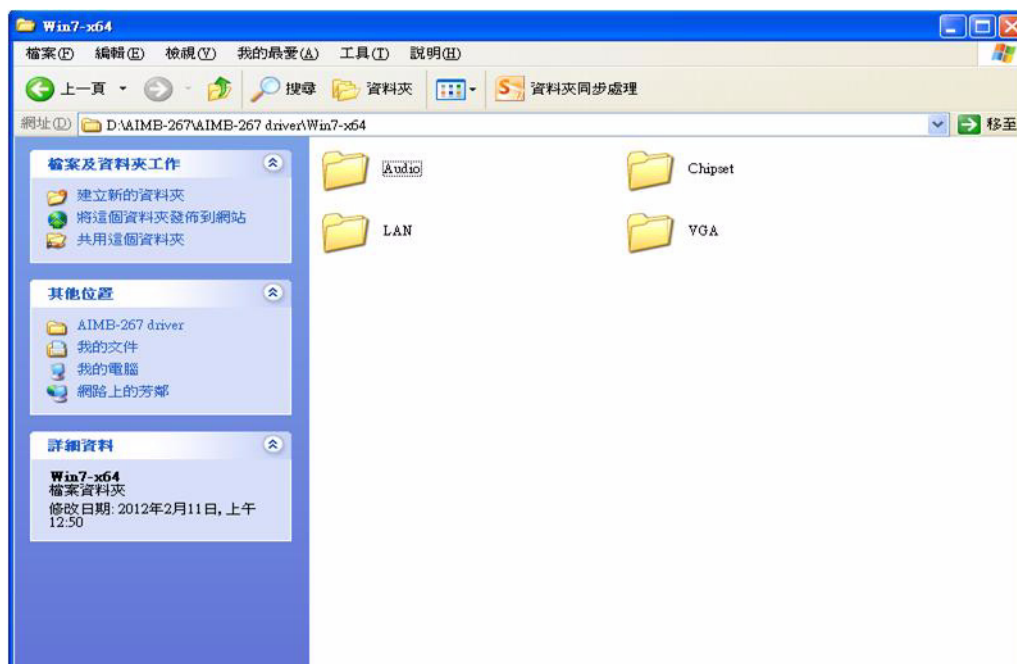
**Note!** *This utility is used for the following versions of Windows, and it has to be installed before installing all the other drivers:*



- Windows 7 (32-bit)
- Windows 7 (64-bit)
- Windows XP professional edition (32-bit)
- Windows XP professional edition (64-bit)

## 4.3 Windows XP/Windows 7 Driver Setup

1. Insert the driver CD into your system's CD-ROM drive. You can see the driver folder items. Navigate to the "Chipset" folder and click "setup.exe" to complete the installation of the driver.





# Chapter 5

## VGA Setup

## 5.1 Introduction

You need to install the VGA driver to enable the Intel G41 integrated graphics controller.

The Intel G41 integrated graphics controller includes the following features:

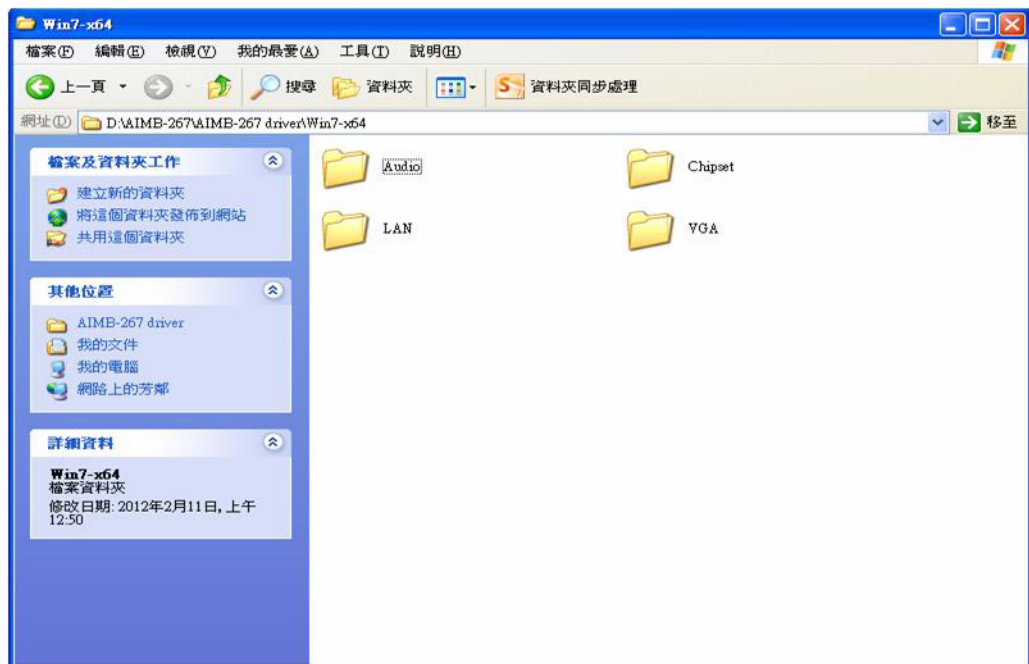
- Intel Graphics Media Accelerator X4500: Incorporating the latest Microsoft\* DirectX\*9 support capabilities, it allows software developers to create lifelike environments and characters. Dual independent display, enhanced display modes for wide screen flat panels, and optimized 3D support delivers an intense and realistic visual experience without requiring a separate graphics card.

## 5.2 Windows XP/7

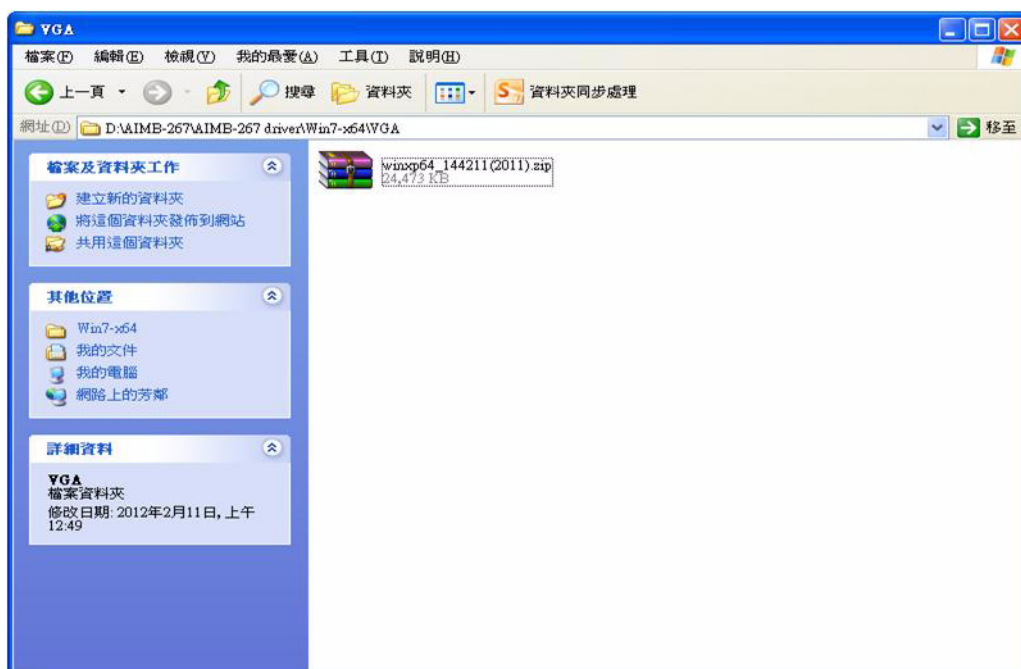
**Note!** Before installing this driver, make sure the CSI utility has been installed in your system. See Chapter 4 for information on installing the CSI utility.



Insert the driver CD into your system's CD-ROM drive. You can see the driver folders items. Navigate to the "VGA" folder and click "setup.exe" to complete the installation of the drivers for Windows 7, Windows XP.









# Chapter 6

## LAN Configuration

---

## 6.1 Introduction

The AIMB-267 KIOSK has dual Gigabit Ethernet LANs via dedicated PCI Express x1 lanes (Dual Realtek RTL8111E for LAN1 and LAN2) that offer bandwidth of up to 500 MB/ sec, eliminating the bottleneck of network data flow and incorporating Gigabit Ethernet at 1000 Mbps.

## 6.2 Features

- Integrated 10/100/100 BASE-T transceiver
- 10/100/1000 BASE-T triple-speed MAC
- High-speed RISC core with 24-KB cache
- On-chip voltage regulation
- Wake-on-LAN (WOL) support
- PCI Express X1 host interface

## 6.3 Installation

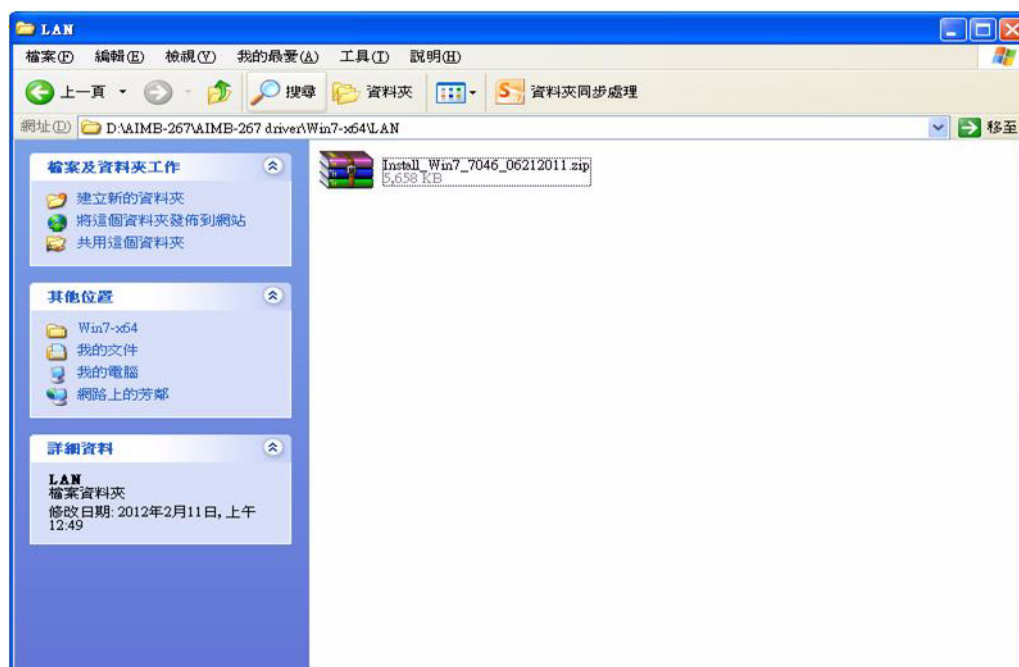
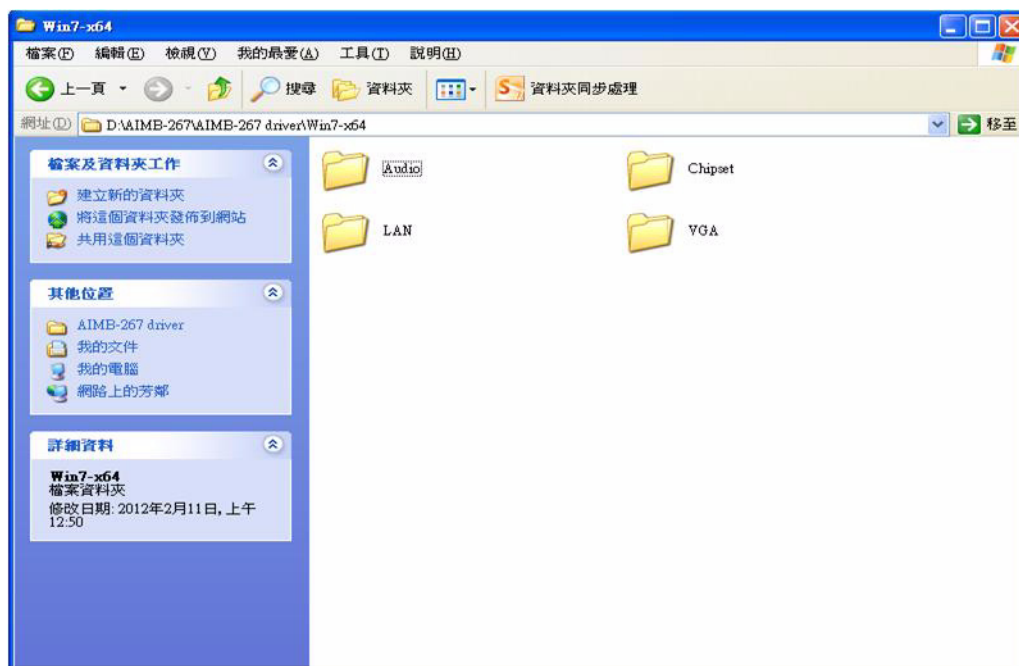
**Note!** *Before installing the LAN drivers, make sure the CSI utility has been installed on your system. See Chapter 4 for information on installing the CSI utility.*



The AIMB-267 KIOSK's dual Realtek RTL8111E (LAN1 and LAN2) Gigabit integrated controllers support all major network operating systems. However, the installation procedure varies from system to system. Please find and use the section that provides the driver setup procedure for the operating system you are using.

## 6.4 Windows XP/ Windows 7 Setup (Realtek RTL8111E)

Insert the driver CD into your system's CD-ROM drive. Select the Drv\_LAN folder then navigate to the directory for your OS.





# Appendix **A**

## Programming the Watchdog Timer

---

## A.1 Programming the Watchdog Timer

The AIMB-267 KIOSK's watchdog timer can be used to monitor system software operation and take corrective action if the software fails to function within the programmed period. This section describes the operation of the watchdog timer and how to program it.

### A.1.1 Watchdog timer overview

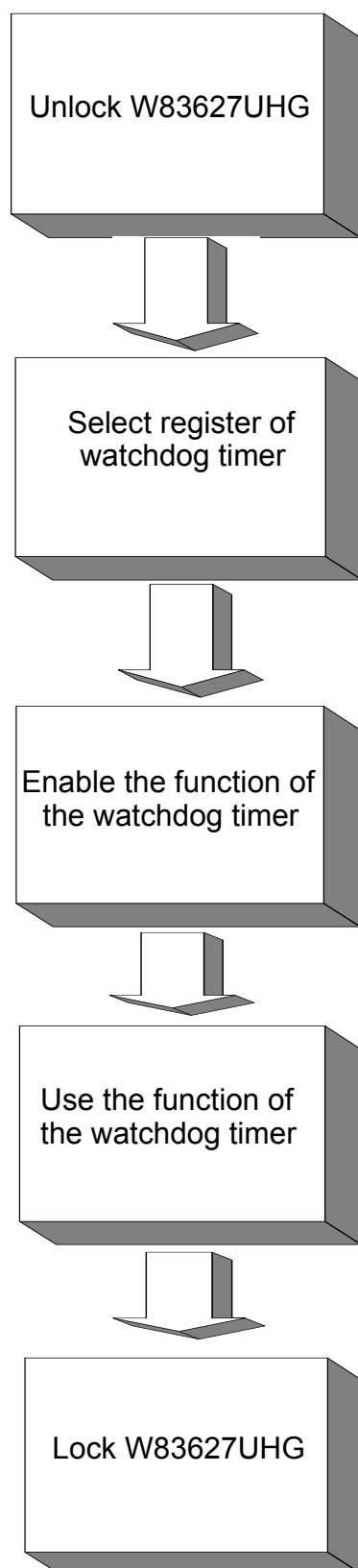
The watchdog timer is built into the super I/O controller W83627UHG. It provides the following user-programmable functions:

- Can be enabled and disabled by the user program
- Timer can be set from 1 to 255 seconds or 1 to 255 minutes
- Generates an interrupt or resets signal if the software fails to reset the timer before time-out

### A.1.2 Programming the Watchdog Timer

The I/O port address of the watchdog timer is 2E (hex) and 2F (hex). 2E (hex) is the address port. 2F (hex) is the data port. You must first assign the address of register by writing an address value into address port 2E (hex), then write/read data to/from the assigned register through data port 2F (hex).





**Table A.1: Watchdog Timer Registers**

<b>Address of register (2E) Attribute</b>		
Read/Write	Value (2F) & description	
87 (hex)	-----	Write this address to I/O address port 2E (hex) twice to unlock the W83627UHG.
07 (hex)	write	Write 08 (hex) to select register of watchdog timer.
30 (hex)	write	Write 01 (hex) to enable the function of the watchdog timer. Disabled is set as default.
F5 (hex)	write	Set seconds or minutes as units for the timer. Write 0 to bit 3: set second as counting unit. [default] Write 1 to bit 3: set minutes as counting unit.
F6 (hex)	write	0: stop timer [default] 01~FF (hex): The amount of the count, in seconds or minutes, depends on the value set in register F5 (hex). This number decides how long the watchdog timer waits for strobe before generating an interrupt or reset signal. Writing a new value to this register can reset the timer to count with the new value.
F7 (hex)	read/write	Bit 7: Write 1 to enable mouse to reset the timer, 0 to disable [default]. Bit 6: Write 1 to enable keyboard to reset the timer, 0 to disable. [default] Bit 5: Write 1 to generate a timeout signal immediately and automatically return to 0. [default=0] Bit 4: Read status of watchdog timer, 1 means timer is "timeout".
AA (hex)	-----	Write this address to I/O port 2E (hex) to lock the watchdog timer 2.

### A.1.3 Example Program

1. Enable watchdog timer and set 10 sec. as timeout interval

```

;-----
Mov dx, 2Eh ; Unlock W83627UHG
Mov al, 87h
Out dx, al
Out dx, al
;-----
Mov dx, 2Eh ; Select Logical Device 8 of watchdog timer
Mov al, 07h
Out dx, al
Inc dx
Mov al, 08h
Out dx, al
;-----
Mov dx, 2Eh ; Set second as counting unit
Mov al, F5h
Out dx, al
Inc dx
In al, dx
And al, not 08h
Out dx, al
;-----
Mov dx, 2Eh ; Set timeout interval as 10 seconds and start counting
Mov al, F6h
Out dx, al
Inc dx
Mov al, 10
Out dx, al
;-----
Mov dx, 2Eh; Lock W83627UHG
Mov al, AAh
Out dx, al

```

2. Enable watchdog timer and set 5 minutes as timeout interval

```

;-----
Mov dx, 2Eh ; Unlock W83627UHG
Mov al, 87h
Out dx, al
Out dx, al
;-----
Mov dx, 2Eh ; Select Logical Device 8 of watchdog timer
Mov al, 07h
Out dx, al
Inc dx
Mov al, 08h

```

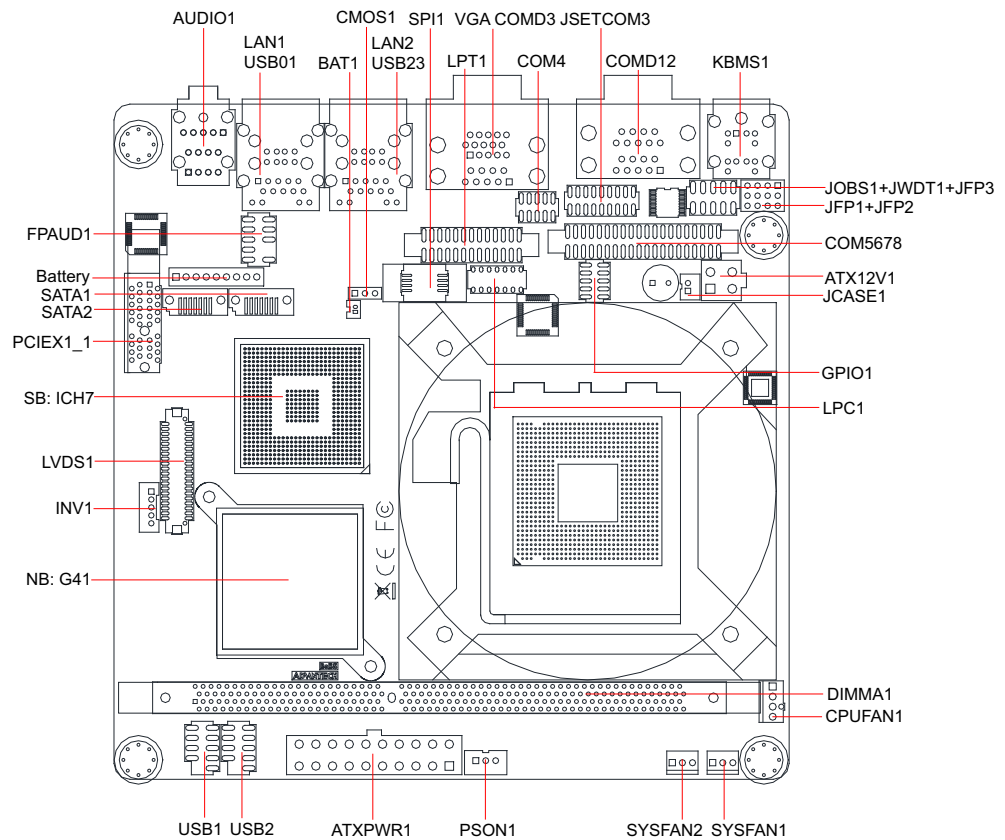
---

```
Out dx, al
;-----
Mov dx, 2Eh ; Set minutes as counting unit
Mov al, F5h
Out dx, al
Inc dx
In al, dx
Or al, 08h
Out dx, al
;-----
Mov dx, 2Eh ; Set timeout interval as 5 minutes and start counting
Mov al, F6h
Out dx, al
Inc dx
Mov al, 5
Out dx, al
;-----
Mov dx, 2Eh ; Lock W83627UHG
Mov al, AAh
Out dx, al
```

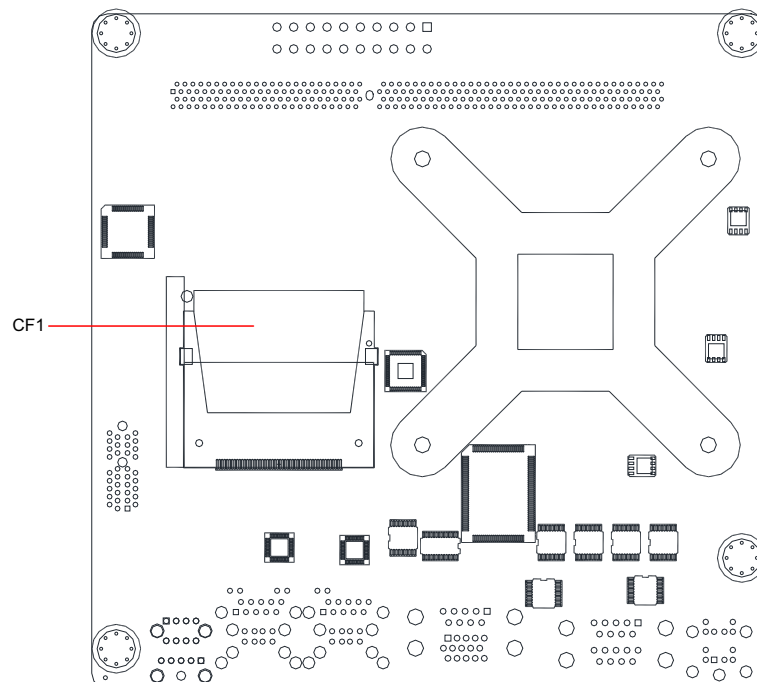
# Appendix **B**

## I/O Pin Assignments

## B.1 AIMB-267 KIOSK Jumper Setting & Connector List

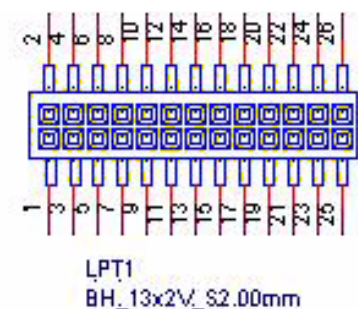


### Figure B.1 Top View



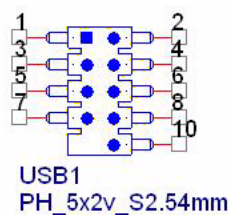
### Figure B.2 Bottom View

## B.2 LPT1



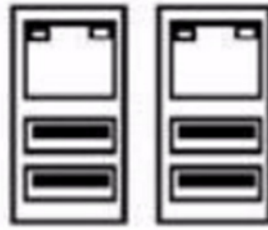
LPT1		Printer Port connectors	
Description		Printer Port	
Pin	Pin Name	Pin	Pin Name
1	LPT1_a_STB#	2	LPT1_AFD#
3	LPT1_a_PD0	4	LPT1_ERR#
5	LPT1_a_PD1	6	LPT1_INIT#
7	LPT1_a_PD2	8	LPT1_SLIN#
9	LPT1_a_PD3	10	GND
11	LPT1_a_PD4	12	GND
13	LPT1_a_PD5	14	GND
15	LPT1_a_PD6	16	GND
17	LPT1_a_PD7	18	GND
19	LPT1_ACK#	20	GND
21	LPT1_BUSY	22	GND
23	LPT1_PE	24	GND
25	LPT1_SLCT		

## B.3 USB1 / USB2



USB1/USB2		Two USB ports	
Description		Two USB ports	
Pin	Pin Name	Pin	Pin Name
1	+V5_USB	6	USB1P
2	+ V5_USB	7	GND
3	USB0N	8	GND
4	USB1N		
5	USB0P	10	GND

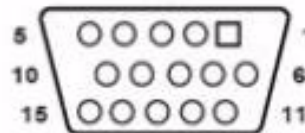
## B.4 USB/LAN



USB ports			
Pin	Signal	Pin	Signal
1	VCC	3	Data0+
2	Data0-	4	GND

Ethernet 10/100 Mbps RJ-45 port			
Pin	Signal	Pin	Signal
1	XMT+	5	N/C
2	XMT-	6	RCV-
3	RCV+	7	N/C
4	N/C	8	N/C

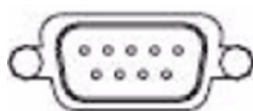
## B.5 VGA1



VGA connector			
Pin	Signal	Pin	Signal
1	RED	9	CRT_VCCIN
2	VGA_G	10	GND
3	VGA_B	11	N/C
4	N/C	12	V_SDAT
5	GND	13	H-SYNC
6	GND	14	V-SYNC
7	GND	15	V_SCLK
8	GND		

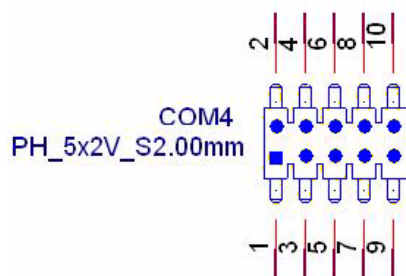


## B.6 COM1 ~ 3



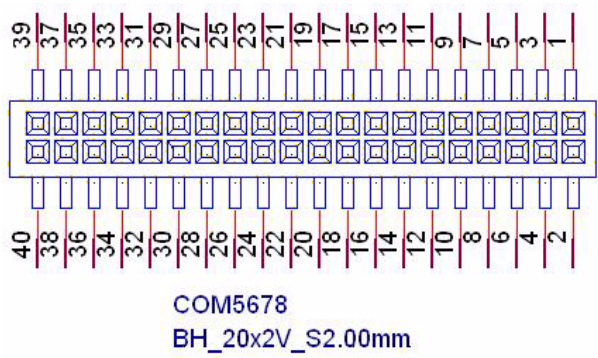
COM 1 ~ 3	COM 1 ~ 3 connectors
Pin	Signal
1	DCD
2	DSR
3	RXD
4	RTS
5	TXD
6	CTS
7	DTR
8	RRI
9	GND

## B.7 COM4



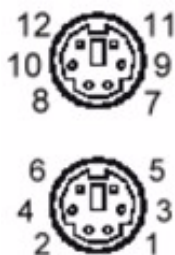
INV1	COM4 connector
Description	COM4 connector
Pin	Pin Name
1	COM4_DCD#
2	COM4_DSR#
3	COM4_SIN
4	COM4_RTS#
5	COM4_SOUT
6	COM4_CTS#
7	COM4_DTR#
8	COM4_RI#
10	GND

# B.8 COM5678



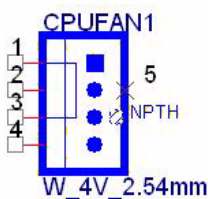
COM5678		COM5678 connectors	
Description		COM5678 connectors	
Pin	Pin Name	Pin	Pin Name
1	COM5_DCD#	2	COM5_DSR#
3	COM5_SIN	4	COM5_RTS#
5	COM5_SOUT	6	COM5_CTS#
7	COM5_DTR#	8	COM5_RI#
9	GND	10	GND
11	COM6_DCD#	12	COM6_DSR#
13	COM6_SIN	14	COM6_RTS#
15	COM6_SOUT	16	COM6_CTS#
17	COM6_DTR#	18	COM6_RI#
19	GND	20	GND
21	COM7_DCD#	22	COM7_DSR#
23	COM7_SIN	24	COM7_RTS#
25	COM7_SOUT	26	COM7_CTS#
27	COM7_DTR#	28	COM7_RI#
29	GND	30	GND
31	COM8_DCD#	32	COM8_DSR#
33	COM8_SIN	34	COM8_RTS#
35	COM8_SOUT	36	COM8_CTS#
37	COM8_DTR#	38	COM8_RI#
39	GND	40	GND

## B.9 KBMS1



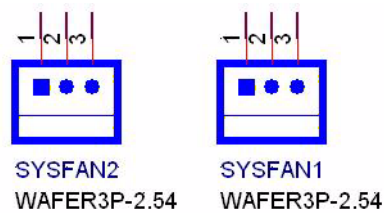
KBMS1	Keyboard and mouse connector
Pin	Signal
1	KB DATA
2	N/C
3	GND
4	KB VCC
5	KC CLK
6	N/C
7	M_DATA
8	N/C
9	GND
10	M_VCC
11	M_CLK
12	N/C

## B.10 CPUFAN1



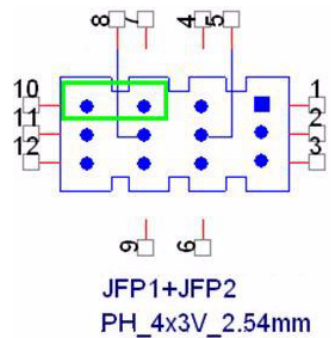
CPUFAN1	CPU FAN
Description	CPU FAN connector
Pin	Pin Name
1	GND
2	CPU_FAN_PWN
3	CPU_FAN_SPEED
4	N/A

## B.11 SYSFAN1~2



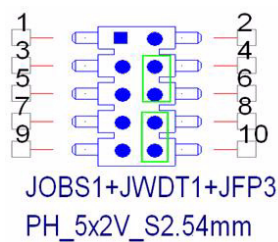
SYSFAN1	SYS FAN
Description	SYS FAN connector
Pin	Pin Name
1	GND
2	SYS_FAN_PWN
3	SYS_FAN_SPEED

## B.12 JFP1+JFP2



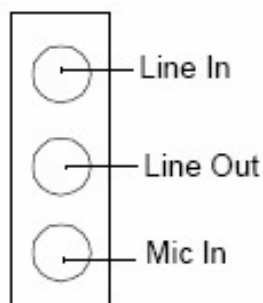
JFP1+JFP2	Front Panel
Description	PWRBTN#(3-6) /RESET#(9-12) /HDD LED(2-5) /SNMP SMBus(8-11) / Internal Buzzer(7-10 short) /External speaker(1-10)
Pin	Pin Name
1	SPK_CN17P1
2	+ V3.3
3	PANSWIN#
4	SPK_CN17P2
5	SATALED#
6	GND
7	SPK_CN17P3
8	SMB_DATA
9	SYS_RST#
10	SPK_CN17P4
11	SMB_CLK
12	GND

## B.13 JOBS1+JWDT1+JFP3



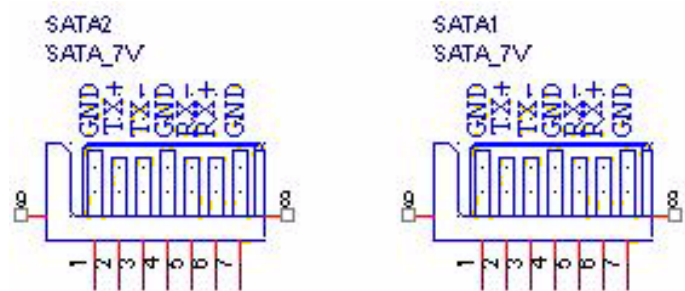
JOBS1+JWDT1+JFP2 OBS / Watch Dog / Front Panel	
<b>Description</b>	Front Panel-PWR LED(1-5) & KB LOCK#(7-9) Watch dog output to Reset# (4-6 short) OSB enable(8-10 short)
<b>Pin</b>	<b>Pin Name</b>
1	+V3.3
2	N/A
3	N/A
4	SIO_WG#
5	GND
6	SYS_RESET#
7	SIO_SUSLED
8	SIO_BEEP
9	KEYLOCK#
10	OBS_BEEP

## B.14 Audio1



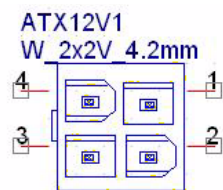
Audio1 Audio connector	
<b>Pin</b>	<b>Signal</b>
1	Line in
2	Line out
3	Mic in

## B.15 SATA1~2



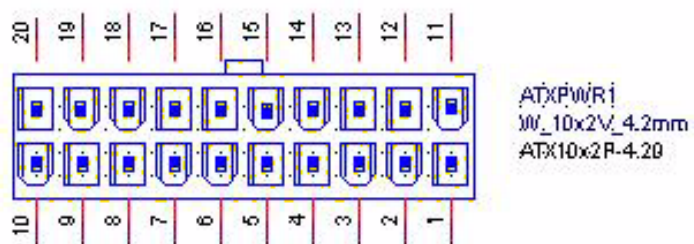
SATA1~2	SATA CON
Description	SATA connector SATA II 3Gb/s
Pin	Pin Name
1	GND
2	TX+
3	TX-
4	GND
5	RX-
6	RX+
7	GND

## B.16 ATX12V1



EATXPWR2	ATX Power Input
Description	ATX 4 pin main power connector
Pin	Pin Name
1	GND
2	GND
3	+V12_4P
4	+V12_4P

## B.17 ATXPWR1



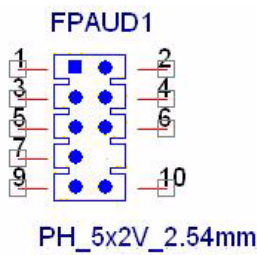
ATXPWR1	ATX Power Input
Description	ATX 20 pin main power connector
Pin	Pin Name
1	+V3.3
2	+V3.3
3	GND
4	+V5
5	GND
6	+V5
7	GND
8	ATXPG
9	+V5_SB
10	+V12V
11	+V3.3
12	-V12
13	GND
14	PS_ON#
15	GND
16	GND
17	GND
18	-V5
19	+V5
20	+V5

# B.18 SPI1



SPI1	BIOS socket
Description	BIOS socket
Pin	Pin Name
1	SPI_CS#
2	SPI_MISO
3	SPI_WP#
4	GND
5	SPI_MOSI
6	SPI_CLK
7	HOLD
8	+V3.3

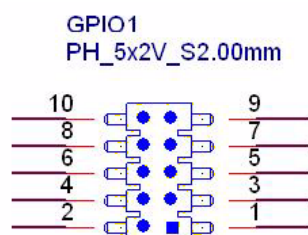
# B.19 FPAUD1



FPAUD1	Audio front panel connector		
Description	Audio front panel connector		
Pin	Pin Name	Pin	Pin Name
1	MIC2_L	6	MIC2-JD
2	AGND	7	FRONT-IO-SENSE_R
3	MIC2_R		
4	PRESENCE#	9	LINE2-L
5	LINE2-R	10	LINE2-JD

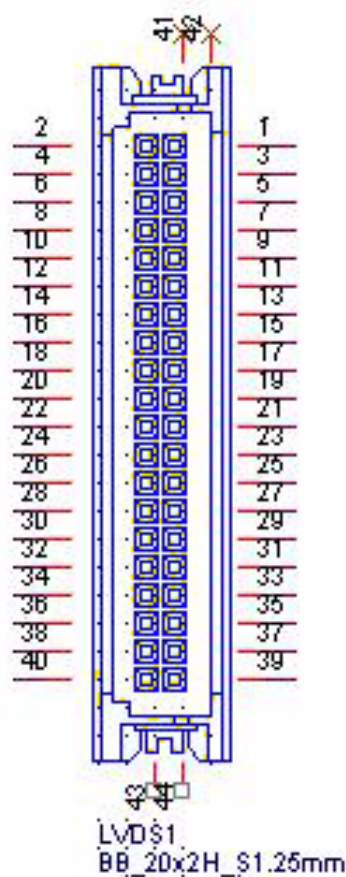


## B.20 GPIO1



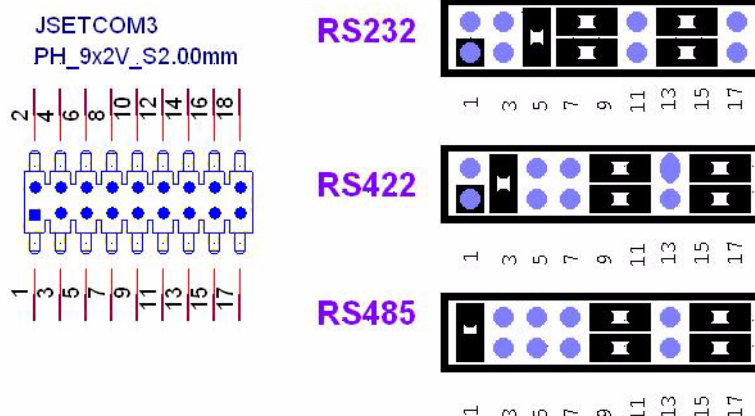
GPIO1	GPIO CONNECT
Description	Digital IO connector
Pin	Pin Name
1	GPIO0
2	GPIO4
3	GPIO1
4	GPIO5
5	GPIO2
6	GPIO6
7	GPIO3
8	GPIO7
9	+V5
10	GND

# B.21 LVDS1



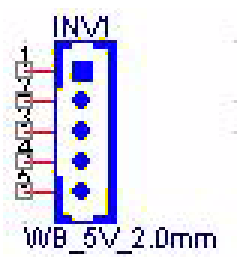
LVDS1 LVDS connector					
Description LVDS connector					
Pin	Pin Name	Pin	Pin Name	Pin	Pin Name
1	VDD_LVDS1	15	LA_DATAP1	29	GND
2	VDD_LVDS1	16	LB_DATAP1	30	GND
3	GND	17	GND	31	L_DDC_CLKR
4	GND	18	GND	32	L_DDC_DATR
5	VDD_LVDS1	19	LA_DATAN2	33	GND
6	VDD_LVDS1	20	LB_DATAN2	34	GND
7	LA_DATAN0	21	LA_DATAP2	35	LA_DATAN3
8	LB_DATAN0	22	LB_DATAP2	36	LB_DATAN3
9	LA_DATAP0	23	GND	37	LA_DATAP3
10	LB_DATAP0	24	GND	38	LB_DATAP3
11	GND	25	LA_CLKN	39	L_BKLTEN
12	GND	26	LB_CLKN	40	VCON (VESA / JEIDA select)
13	LA_DATAN1	27	LA_CLKP		
14	LB_DATAN1	28	LB_CLKP		

## B.22 JSETCOM3



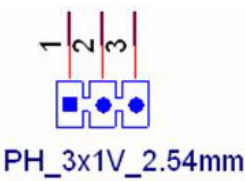
JSETCOM3	
Description	RS232/422/485 SEL. JUMPER
Pin	Pin Name
1	UART3_SIN
2	RXD485_3
3	UART3_SIN
4	RXD422_3
5	UART3_SIN
6	RXD232_3
7	DCDC3
8	SOUT3
9	COM3_DCD#
10	COM3_SOUT
11	COM3_TXD485N
12	COM3_RXD485P
13	SIN3
14	DTR3
15	COM3_SIN
16	COM3_DTR#
17	COM3_TXD485P
18	COM3_RXD485N

# B.23 INV1



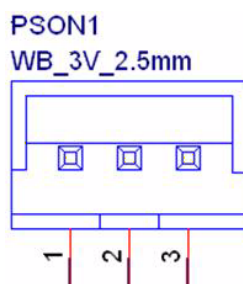
INV1	Inverter connector for LVDS1
Description	Inverter connector for LVDS1
Pin	Pin Name
1	+V12_INV1
2	GND
3	LVDS1_ENBKL
4	SIO_VCON (Liner brightness setting)
5	+V5_INV1

# B.24 CMOS1



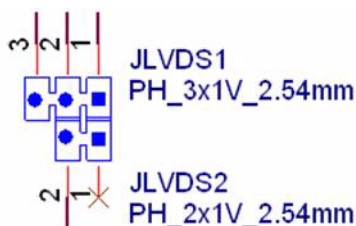
JCMOS1	CMOS clear
Description	Clear BIOS CMOS (2-3 short) Normal operation (1-2 short)
Pin	Pin Name
1	RTCRST#
2	RTCRST#
3	GND

## B.25 PSON1



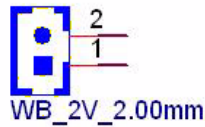
PSON1	AT/ATX feature selection
Description	ATX mode (2-3 short) AT mode (1-2 short)
Pin	Pin Name
1	AT
2	+V3.3
3	ATX

## B.26 JLVDS1 / JLVDS2



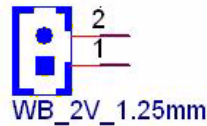
JLVDS1 / JLVDS2	Voltage selector for LVDS1 connector
Description	Voltage selector : +V3.3 (JLVDS1 1-2 short) +V5 (JLVDS1 2-3 short) +V12 (JLVDS1 pin 2 - JLVDS2 pin2 short)
<b>JLVDS1</b>	
Pin	Name
1	+V3.3
2	+V_LCD_S (LCD power)
3	+V5
<b>JLVDS2</b>	
Pin	Name
1	NC
2	+V12

## B.27 JCASE1



<b>JCASE1</b>	<b>JCASE OPEN</b>
<b>Description</b>	<b>JCASE OPEN connector</b>
<b>Pin</b>	<b>Pin Name</b>
1	CASEOP#
2	GND

## B.28 BAT1



<b>BAT1</b>	<b>Battery socket</b>
<b>Description</b>	<b>Battery socket</b>
<b>Pin</b>	<b>Pin Name</b>
1	+VBAT
2	GND
3	N/A

## B.29 DMA Channel Assignments

<b>Channel</b>	<b>Function</b>
0	Available
1	Available
2	Available
3	ECP Printer Port (LPT1)
4	Direct Memory Access Controller
5	Available
6	Available
7	Available

## B.30 Interrupt Assignments

Priority	Interrupt#	Interrupt Source
1	NMI	Parity error detected
2	IRQ0	System timer
3	IRQ1	Standard 101/102-key or Microsoft Natural PS/2 keyboard
-	IRQ2	Interrupt form controller 2 (cascade)
4	IRQ8	Real-time clock
5	IRQ9	Microsoft ACPI-Compliant system
6	IRQ10	Serial communication port 4
7	IRQ11	Serial communication port 5/6/7/8
8	IRQ12	PS/2 mouse
9	IRQ13	Numeric data processor
10	IRQ14	Primary IDE channel
11	IRQ15	Secondary IDE channel
12	IRQ3	Serial communication port 2
13	IRQ4	Serial communication port 1
14	IRQ5	Serial communication port 3
15	IRQ6	Available
16	IRQ7	Available

## B.31 1st MB Memory Map

Address Range (Hex)	Device
E000h - FFFFFh	BIOS
CC800h - DFFFFh	Unused
C0000h - CC7FFh	VGA BIOS
A0000h - BFFFFh	Video memory
))))h - 9FFFFh	Base memory



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